



CITY OF HERCULES

111 CIVIC DRIVE, HERCULES, CA 94547
PHONE: 510 • 799 • 8200

September 29, 2017

Bruce H. Wolfe, Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Dear Mr. Wolfe:

Enclosed is the 2016-17 Annual Report for the City of Hercules, which is required by and in accordance with Provision C.17 in National Pollutant Discharge Elimination System (NPDES) Permit Number CAS612008 issued by the San Francisco Bay Regional Water Quality Control Board.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Very truly yours,

Mike Roberts
Public Works Director/City Engineer

ATTACHMENT B

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Section 1 – Permittee Information

Background Information					
Permittee Name:	City of Hercules				
Population:	24,848				
NPDES Permit No.:	CAS612008 (San Francisco Bay RWQCB Permit)				
Order Number:	R2-2015-0049 (San Francisco Bay RWQCB Permit)				
Reporting Time Period (month/year):	July 2016 through June 2017				
Name of the Responsible Authority:	David Biggs			Title:	City Manager
Mailing Address:	111 Civic Drive				
City:	Hercules	Zip Code:	94547	Hercules	Zip Code:
Telephone Number:	510.799.8200		Fax Number:	510.245.2521	
E-mail Address:	dbiggs@ci.hercules.ca.us				
Name of the Designated Stormwater Management Program Contact (if different from above):	Mike Roberts		Title:	Public Works Director/City Engineer	
Department:	Public Works Department				
Mailing Address:	111 Civic Drive				
City:	Hercules	Zip Code:	94547	Hercules	Zip Code:
Telephone Number:	510.799.8241		Fax Number:	510.799.8249	
E-mail Address:	Mike.roberts@ci.hercules.ca.us				

Section 2 - Provision C.2 Reporting Municipal Operations

Program Highlights and Evaluation

Highlight/summarize activities for reporting year:

Summary:

Refer to the C.2 Municipal Operations section of the CCCWP's FY 16-17 Annual Report for a description of activities implemented at the countywide and/or regional level.

C.2.a. ► Street and Road Repair and Maintenance

Place a **Y** in the boxes next to activities where applicable BMPs were implemented. If not applicable, type **NA** in the box and provide an explanation in the comments section below. Place an **N** in the boxes next to activities where applicable BMPs were not implemented for one or more of these activities during the reporting fiscal year, then in the comments section below provide an explanation of when BMPs were not implemented and the corrective actions taken.

Y	Control of debris and waste materials during road and parking lot installation, repaving or repair maintenance activities from polluting stormwater
Y	Control of concrete slurry and wastewater, asphalt, pavement cutting, and other street and road maintenance materials and wastewater from discharging to storm drains from work sites.
Y	Sweeping and/or vacuuming and other dry methods to remove debris, concrete, or sediment residues from work sites upon completion of work.

Comments:

C.2.b. ► Sidewalk/Plaza Maintenance and Pavement Washing

Place a **Y** in the boxes next to activities where applicable BMPs were implemented. If not applicable, type **NA** in the box and provide an explanation in the comments section below. Place an **N** in the boxes next to activities where applicable BMPs were not implemented for one or more of these activities during the reporting fiscal year, then in the comments section below provide an explanation of when BMPs were not implemented and the corrective actions taken.

Y	Control of wash water from pavement washing, mobile cleaning, pressure wash operations at parking lots, garages, trash areas, gas station fueling areas, and sidewalk and plaza cleaning activities from polluting stormwater
Y	Implementation of the BASMAA Mobile Surface Cleaner Program BMPs

Comments:

C.2.c. ► Bridge and Structure Maintenance and Graffiti Removal

Place a **Y** in the boxes next to activities where applicable BMPs were implemented. If not applicable, type **NA** in the box and provide an explanation in the comments section below. Place an **N** in the boxes next to activities where applicable BMPs were not implemented for one or more of these activities during the reporting fiscal year, then in the comments section below provide an explanation of when BMPs were not implemented and the corrective actions taken.

Y	Control of discharges from bridge and structural maintenance activities directly over water or into storm drains
Y	Control of discharges from graffiti removal activities
Y	Proper disposal for wastes generated from bridge and structure maintenance and graffiti removal activities
Y	Implementation of the BASMAA Mobile Surface Cleaner Program BMPs for graffiti removal
Y	Employee training on proper capture and disposal methods for wastes generated from bridge and structural maintenance and graffiti removal activities.
Y	Contract specifications requiring proper capture and disposal methods for wastes generated from bridge and structural maintenance and graffiti removal activities.

Comments:

City staff removes all graffiti and no contractors are engaged for this work. Graffiti is rare within our City, but staff is trained in proper methods of removal, capture and disposal of waste generated from this activity.

C.2.e. ► Rural Public Works Construction and Maintenance			
Does your municipality own/maintain rural ¹ roads?:		<input type="checkbox"/>	Yes
		<input checked="" type="checkbox"/>	No
If your answer is No then skip to C.2.f.			
Place a Y in the boxes next to activities where applicable BMPs were implemented. If not applicable, type NA in the box and provide an explanation in the comments section below. Place an N in the boxes next to activities where applicable BMPs were not implemented for one or more of these activities during the reporting fiscal year, then in the comments section below provide an explanation of when BMPs were not implemented and the corrective actions taken.			
<input type="checkbox"/>	Control of road-related erosion and sediment transport from road design, construction, maintenance, and repairs in rural areas		
<input type="checkbox"/>	Identification and prioritization of rural road maintenance based on soil erosion potential, slope steepness, and stream habitat resources		
<input type="checkbox"/>	No impact to creek functions including migratory fish passage during construction of roads and culverts		
<input type="checkbox"/>	Inspection of rural roads for structural integrity and prevention of impact on water quality		
<input type="checkbox"/>	Maintenance of rural roads adjacent to streams and riparian habitat to reduce erosion, replace damaging shotgun culverts and excessive erosion		
<input type="checkbox"/>	Re-grading of unpaved rural roads to slope outward where consistent with road engineering safety standards, and installation of water bars as appropriate		
<input type="checkbox"/>	Inclusion of measures to reduce erosion, provide fish passage, and maintain natural stream geomorphology when replacing culverts or design of new culverts or bridge crossings		
Comments including listing increased maintenance in priority areas:			

¹Rural means any watershed or portion thereof that is developed with large lot home-sites, such as one acre or larger, or with primarily agricultural, grazing or open space uses.

C.2.f. ► Corporation Yard BMP Implementation				
Place an X in the boxes below that apply to your corporation yard(s):				
<input type="checkbox"/>	We do not have a corporation yard			
<input type="checkbox"/>	Our corporation yard is a filed NOI facility and regulated by the California State Industrial Stormwater NPDES General Permit			
<input checked="" type="checkbox"/>	We have a Stormwater Pollution Prevention Plan (SWPPP) for the Corporation Yard(s)			
Place an X in the boxes below next to implemented SWPPP BMPs to indicate that these BMPs were implemented in applicable instances. If not applicable, type NA in the box. If one or more of the BMPs were not adequately implemented during the reporting fiscal year then indicate so and explain in the comments section below:				
<input type="checkbox"/>	Control of pollutant discharges to storm drains such as wash waters from cleaning vehicles and equipment			
<input checked="" type="checkbox"/>	Routine inspection prior to the rainy seasons of corporation yard(s) to ensure non-stormwater discharges have not entered the storm drain system			
<input type="checkbox"/>	Containment of all vehicle and equipment wash areas through plumbing to sanitary or another collection method			
<input checked="" type="checkbox"/>	Use of dry cleanup methods when cleaning debris and spills from corporation yard(s) or collection of all wash water and disposing of wash water to sanitary or other location where it does not impact surface or groundwater when wet cleanup methods are used			
<input checked="" type="checkbox"/>	Cover and/or berm outdoor storage areas containing waste pollutants			
Comments: The City of Hercules corporation year is more a storage yard than a corporation yard. No vehicles or parts washing on-site. A SWPPP has been filed and BMP's are continually maintained as required.				
If you have a corporation yard(s) that is not an NOI facility, complete the following table for inspection results for your corporation yard(s) or attach a summary including the following information:				
Corporation Yard Name	Corp Yard Activities w/ site-specific SWPPP BMPs	Inspection Date ²	Inspection Findings/Results	Date and Description of Follow-up and/or Corrective Actions
City of Hercules Corporation Yard	1. Site Drainage – all flows go to Bio-retention area. 2. Materials Storage – All hazardous	10/19/2016	All BMPs in place were found to be functional and in good working order. The Bio-retention area is functioning as designed and no maintenance was needed this past year. The secondary	No follow up actions required.

² Minimum inspection frequency is once a year during September.

	<p>materials are stored in an area with secondary containment. The only materials stored onsite are from Illegal Dumping P/U.</p> <p>3. All Sanitary Sewer flows go to onsite storage tank and are removed via pump service.</p>		<p>containment area is operational although not being used much as there were no illegal dumping issues to report on. The above ground Sanitary Sewer Tank is functioning and no maintenance was needed this reporting year.</p>	
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Section 3 - Provision C.3 Reporting New Development and Redevelopment

C.3.b.iv.(1) ► Regulated Projects Approved Prior to C.3 Requirements

(For FY 2016-17 Annual Report only) Does your agency have any Regulated Projects that were approved with no Provision C.3 stormwater treatment requirements under a previous MS4 permit and that did not begin construction by January 1, 2016 (i.e., that are subject to Provision C.3.b.i.(2)?

<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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See attached Table C.3.b.iv.(1).

C.3.b.iv.(2) ► Regulated Projects Reporting

See attached table **C.3.b.iv.(2)** or attach your own table including the same information.

C.3.e.iv. ► Alternative or In-Lieu Compliance with Provision C.3.c.

Is your agency choosing to require 100% LID treatment onsite for all Regulated Projects and not allow alternative compliance under Provision C.3.e.?

<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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Comments (optional):

C.3.e.v ► Special Projects Reporting

1. In FY 2016-17, has your agency received, but not yet granted final discretionary approval of, a development permit application for a project that has been identified as a potential Special Project based on criteria listed in MRP Provision C.3.e.ii(2) for any of the three categories of Special Projects (Categories A, B or C)?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
2. In FY 2016-17, has your agency granted final discretionary approval to a Special Project? If yes, include the project in both the C.3.b.iv.(2) Table, and the C.3.e.v. Table.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	<input type="checkbox"/>		<input type="checkbox"/>	

C.3.h.v.(2) ► Reporting Newly Installed Stormwater Treatment Systems and HM Controls (Optional)

On an annual basis, before the wet season, provide a list of newly installed (installed within the reporting year) stormwater treatment systems and HM controls to the local mosquito and vector control agency and the Water Board. The list shall include the facility locations and a description of the stormwater treatment measures and HM controls installed.
The City of Hercules has no newly installed projects to report on.

C.3.h.v.(3)(a) –(c) and (f) ► Installed Stormwater Treatment Systems Operation and Maintenance Verification Inspection Program Reporting

Site Inspections Data		Number/Percentage
Total number of Regulated Projects (including offsite projects, and Regional Projects) in your agency's database or tabular format at the end of the previous fiscal year (FY15-16)		11
Total number of Regulated Projects (including offsite projects, and Regional Projects) in your agency's database or tabular format at the end of the reporting period (FY 16-17)		11
Total number of Regulated Projects (including offsite projects, and Regional Projects) for which O&M verification inspections were conducted during the reporting period (FY 16-17)		10 ³
Percentage of the total number of Regulated Projects (including offsite projects, and Regional Projects) inspected during the reporting period (FY 16-17)		90% ⁴

³ Based on the number of Regulated Projects in the database or tabular format at the end of the previous fiscal year (FY 15-16), per MRP Provision C.3.h.ii.(6)(b).

⁴ Based on the number of Regulated Projects in the database or tabular format at the end of the previous fiscal year (FY 15-16), per MRP Provision C.3.h.ii.(6)(b).

**C.3.h.v.(3)(d)-(e) ► Installed Stormwater Treatment Systems
 Operation and Maintenance Verification Inspection Program
 Reporting**

Provide a discussion of the inspection findings for the year and any common problems encountered with various types of treatment systems and/or HM controls. This discussion should include a general comparison to the inspection findings from the previous year.

Summary:

Water Board staff in their April 11, 2011 annual report review letter indicated that a self-inspection by owners/operators of treatment and HM controls is not acceptable as a municipal O&M verification inspection. Inspections must be conducted by permittee staff and/or contractor under direction of the permittee. However, for vault-based treatment systems, Permittees may accept 3rd party inspection reports in-lieu of conducting Permittee O&M inspections only if the 3rd party inspections are conducted at least annually. 2) If a permittee did not inspect any Regulated Projects during FY 16-17 because there are no Regulated Projects within the permittee's jurisdiction or because no stormwater treatment or HM controls have been built yet for Regulated Projects within the permittee's jurisdiction, the permittee should state that here.

Provide a discussion of the effectiveness of the O&M Program and any proposed changes to improve the O&M Program (e.g., changes in prioritization plan or frequency of O&M inspections, other changes to improve effectiveness program).

Summary:

City staff continues to clean and inspect the device at the BART parking lot on a weekly basis. Plant material is maintained by a contract landscaper every 6 months. The device continues to operate effectively and there have been no extraordinary maintenance issues.

The hydrodynamic separators are maintained annually by a contract services. Reports are submitted to The City and no anomalies were indicated.

C.3.h.v.(4) ► Enforcement Response Plan

(For FY 2016-17 Annual Report only) Has your agency completed an Enforcement Response Plan for all O&M inspections of stormwater treatment measures by July 1, 2017?

	Yes	X	No
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If No, provide schedule for completion: **ERP Completed August 8, 2017.**

C.3.i. ► Required Site Design Measures for Small Projects and Detached Single Family Home Projects

On an annual basis, discuss the implementation of the requirements of Provision C.3.i, including ordinance revisions, permit conditions, development of standard specifications and/or guidance materials, and staff training.

Summary:

The Contra Costa Clean Water Program adopted a December 1, 2012 addendum to the Stormwater C.3 Guidebook, 6th Edition. The addendum, "Preparing a Stormwater Control Plan for a Small Land Development Project," includes step-by-step instructions, a project data form, and standard specifications for runoff reduction measures. The City of Hercules stormwater ordinance requires that applications for development approvals for projects subject to the permit's new development requirements include a Stormwater Control Plan meeting the criteria in the most recent version of the Stormwater C.3 Guidebook.

C.3.j.i.(5).(a) ► Green Infrastructure Framework or Work Plan

(For FY 2016-17 Annual Report only) Was your agency's Green Infrastructure Framework or Work Plan approved by the agency's governing body, mayor, city manager, or county manager by June 30, 2017?

X

Yes, approval documentation attached

No

If Yes, describe approval process and documentation:

The City Council approved the resolution in June of 2017.

C.3.j.i.(5)(d) ► Green Infrastructure Outreach

On an annual basis, provide a summary of your agency's outreach and education efforts pertaining to Green Infrastructure planning and implementation.

Summary:

Please refer to the CCCWP's FY 16-17 Annual Report for a summary of outreach efforts implemented at the Countywide level.

C.3.j.ii.(2) ► Early Implementation of Green Infrastructure Projects

On an annual basis, submit a list of green infrastructure projects, public and private, that are already planned for implementation during the permit term and infrastructure projects planned for implementation during the permit term that have potential for green infrastructure measures. Include the following information:

- A summary of planning or implementation status for each public and private green infrastructure project that is not also a Regulated Project as defined in Provision C.3.b.ii. (see C.3.j.ii.(2) Table B - Planned Green Infrastructure Projects).
- A summary of how each public infrastructure project with green infrastructure potential will include green infrastructure measures to the maximum extent practicable during the permit term. For any public infrastructure project where implementation of green infrastructure measures is not practicable, submit a brief description of the project and the reasons green infrastructure measures were impracticable to implement (see C.3.j.ii.(2) Table A - Public Projects Reviewed for Green Infrastructure).

Background Information:

Describe how this provision is being implemented by your agency, including the process used by your agency to identify projects with potential for green infrastructure, if applicable.

Refer to the BASMAA May 6, 2016 document, "Guidance for Identifying Green Infrastructure Potential in Municipal Capital Improvement Projects".

Summary of Planning or Implementation Status of Identified Projects:

See attached Tables C.3.j.ii.(2)-A and C.3.j.ii.(2)-B for the required information, and any additional notes provided here (optional).

C.3.j.iii.(2) ► Participate in Processes to Promote Green Infrastructure

On an annual basis, report on the goals and outcomes during the reporting year of work undertaken to participate in processes to promote green infrastructure.

Please refer to the CCCWP's FY 16-17 Annual Report, Section 3 for a summary of efforts conducted to help regional, State, and federal agencies plan, design and fund incorporation of green infrastructure measures into local infrastructure projects, including transportation projects.

C.3.j.iv.(2) ► Tracking and Reporting Progress

On an annual basis, report progress on development and implementation of methods to track and report implementation of green infrastructure measures and provide reasonable assurance that wasteload allocations for TMDLs are being met.

Please refer to the CCCWP's FY 16-17 Annual Report, Section 3 for a summary of methods being developed to track and report implementation of green infrastructure measures.

C.3.b.iv.(1) ► List of Regulated Projects Approved Prior to C.3 Requirements			
Project Name Project No.	Project Location ⁵ , Street Address	Type of Stormwater Treatment Required ⁶	Type of Exemption Granted ⁷
None			

⁵ Include cross streets

⁶ Indicate the stormwater treatment system required, if applicable

⁷ Indicate the type for exemption, if applicable. For example, the project was previously approved with a vesting tentative map, or the Permittee has no legal authority to require changes to previously granted approvals (such as previously granted building permits).

C.3.b.iv.(2) ► Regulated Projects Reporting Table (part 1) – Projects Approved During the Fiscal Year Reporting Period											
Project Name Project No.	Project Location ⁸ , Street Address	Name of Developer	Project Phase No. ⁹	Project Type & Description ¹⁰	Project Watershed ¹¹	Total Site Area (Acres)	Total Area of Land Disturbed (Acres)	Total New Impervious Surface Area (ft ²) ¹²	Total Replaced Impervious Surface Area (ft ²) ¹³	Total Pre- Project Impervious Surface Area ¹⁴ (ft ²)	Total Post- Project Impervious Surface Area ¹⁵ (ft ²)
Private Projects											
Creekside Apartments – Block N	2225 John Muir Parkway	Hercules Development Partners, LP	N/A	Three buildings, residential and retail space, with a below ground parking garage	Refugio Creek to San Pablo Bay	2.2	2.2	96,043	0	0	96,043
Public Projects											
None											
Comments: None											

⁸Include cross streets

⁹If a project is being constructed in phases, indicate the phase number and use a separate row entry for each phase. If not, enter "NA".

¹⁰Project Type is the type of development (i.e., new and/or redevelopment). Example descriptions of development are: 5-story office building, residential with 160 single-family homes with five 4-story buildings to contain 200 condominiums, 100 unit 2-story shopping mall, mixed use retail and residential development (apartments), industrial warehouse.

¹¹State the watershed(s) in which the Regulated Project is located. Downstream watershed(s) may be included, but this is optional.

¹²All impervious surfaces added to any area of the site that was previously existing pervious surface.

¹³All impervious surfaces added to any area of the site that was previously existing impervious surface.

¹⁴For redevelopment projects, state the pre-project impervious surface area.

¹⁵For redevelopment projects, state the post-project impervious surface area.

C.3.b.iv.(2) ► Regulated Projects Reporting Table (part 2) – Projects Approved During the Fiscal Year Reporting Period (private projects)										
Project Name Project No.	Application Deemed Complete Date ¹⁶	Application Final Approval Date ¹⁷	Source Control Measures ¹⁸	Site Design Measures ¹⁹	Treatment Systems Approved ²⁰	Type of Operation & Maintenance Responsibility Mechanism ²¹	Hydraulic Sizing Criteria ²²	Alternative Compliance Measures ^{23/24}	Alternative Certification ²⁵	HM Controls ^{26/27}
Private Projects										
Creekside Apartments, Block N	-	-	Storm drain stenciling, Landscape irrigation system	None	Bio-retention	Facility Maintenance District	2.C	N/A	Third party certification by BKF Engineers	None, drains to detention basin

¹⁶For private projects, state project application deemed complete date. If the project did not go through discretionary review, report the building permit issuance date.

¹⁷For private projects, state project application final discretionary approval date. If the project did not go through discretionary review, report the building permit issuance date.

¹⁸List source control measures approved for the project. Examples include: properly designed trash storage areas; storm drain stenciling or signage; efficient landscape irrigation systems; etc.

¹⁹List site design measures approved for the project. Examples include: minimize impervious surfaces; conserve natural areas, including existing trees or other vegetation, and soils; construct sidewalks, walkways, and/or patios with permeable surfaces, etc.

²⁰List all approved stormwater treatment system(s) to be installed onsite or at a joint stormwater treatment facility (e.g., flow through planter, bioretention facility, infiltration basin, etc.).

²¹List the legal mechanism(s) (e.g., O&M agreement with private landowner; O&M agreement with homeowners’ association; O&M by public entity, etc…) that have been or will be used to assign responsibility for the maintenance of the post-construction stormwater treatment systems.

²²See Provision C.3.d.i. “Numeric Sizing Criteria for Stormwater Treatment Systems” for list of hydraulic sizing design criteria. Enter the corresponding provision number of the appropriate criterion (i.e., 1.a., 1.b., 2.a., 2.b., 2.c., or 3).

²³For Alternative Compliance at an offsite location in accordance with Provision C.3.e.i.(1), on a separate page, give a discussion of the alternative compliance site including the information specified in Provision C.3.b.v.(1)(m)(i) for the offsite project.

²⁴For Alternative Compliance by paying in-lieu fees in accordance with Provision C.3.e.i.(2), on a separate page, provide the information specified in Provision C.3.b.v.(1)(m)(ii) for the Regional Project.

²⁵Note whether a third party was used to certify the project design complies with Provision C.3.d.

²⁶If HM control is not required, state why not.

²⁷If HM control is required, state control method used (e.g., method to design and size device(s) or method(s) used to meet the HM Standard, and description of device(s) or method(s) used, such as detention basin(s), bioretention unit(s), regional detention basin, or in-stream control).

C.3.b.iv.(2) ► Regulated Projects Reporting Table (part 2) – Projects Approved During the Fiscal Year Reporting Period (public projects)										
Project Name Project No.	Approval Date ²⁸	Date Construction Scheduled to Begin	Source Control Measures ²⁹	Site Design Measures ³⁰	Treatment Systems Approved ³¹	Operation & Maintenance Responsibility Mechanism ³²	Hydraulic Sizing Criteria ³³	Alternative Compliance Measures ^{34/35}	Alternative Certification ³⁶	HM Controls ^{37/38}
Public Projects										
None										
Comments: None										

²⁸For public projects, enter the plans and specifications approval date.

²⁹List source control measures approved for the project. Examples include: properly designed trash storage areas; storm drain stenciling or signage; efficient landscape irrigation systems; etc.

³⁰List site design measures approved for the project. Examples include: minimize impervious surfaces; conserve natural areas, including existing trees or other vegetation, and soils; construct sidewalks, walkways, and/or patios with permeable surfaces, etc.

³¹List all approved stormwater treatment system(s) to be installed onsite or at a joint stormwater treatment facility (e.g., flow through planter, bioretention facility, infiltration basin, etc.).

³²List the legal mechanism(s) (e.g., maintenance plan for O&M by public entity, etc...) that have been or will be used to assign responsibility for the maintenance of the post-construction stormwater treatment systems.

³³See Provision C.3.d.i. "Numeric Sizing Criteria for Stormwater Treatment Systems" for list of hydraulic sizing design criteria. Enter the corresponding provision number of the appropriate criterion (i.e., 1.a., 1.b., 2.a., 2.b., 2.c., or 3).

³⁴For Alternative Compliance at an offsite location in accordance with Provision C.3.e.i.(1), on a separate page, give a discussion of the alternative compliance site including the information specified in Provision C.3.b.v.(1)(m)(i) for the offsite project.

³⁵For Alternative Compliance by paying in-lieu fees in accordance with Provision C.3.e.i.(2), on a separate page, provide the information specified in Provision C.3.b.v.(1)(m)(ii) for the Regional Project.

³⁶Note whether a third party was used to certify the project design complies with Provision C.3.d.

³⁷If HM control is not required, state why not.

³⁸If HM control is required, state control method used (e.g., method to design and size device(s) or method(s) used to meet the HM Standard, and description of device(s) or method(s) used, such as detention basin(s), bioretention unit(s), regional detention basin, or in-stream control).

C.3.h.v.(2). ► Table of Newly Installed³⁹ Stormwater Treatment Systems and Hydromodification Management (HM) Controls (Optional)

Fill in table below or attach your own table including the same information.

Name of Facility	Address of Facility	Party Responsible ⁴⁰ For Maintenance	Type of Treatment/HM Control(s)
Bayfront Muir Pointe Regional Facility	2040 John Muir Pkwy, Hercules, CA.	Property Owner	Bio-retention w/flow control.

³⁹ "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.

⁴⁰State the responsible operator for installed stormwater treatment systems and HM controls.

C.3.e.v. Special Projects Reporting Table												
Reporting Period – July 1, 2016 - June 30, 2017												
Guidance: Provide all information indicated in the table. Do not leave blank cells in the table. If any of the indicated information is not available, please explain (for example, "Information is not yet available due to the preliminary phase of design.")												
Project Name & No.	Permittee	Address	Application Submittal Date ⁴¹	Status ⁴²	Description ⁴³	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴⁴	LID Treatment Reduction Credit Available ⁴⁵	List of LID Stormwater Treatment Systems ⁴⁶	List of Non-LID Stormwater Treatment Systems ⁴⁷
None												

⁴¹Date that a planning application for the Special Project was submitted.

⁴² Indicate whether final discretionary approval is still pending or has been granted, and provide the date or version of the project plans upon which reporting is based.

⁴³Type of project (commercial, mixed-use, residential), number of floors, number of units, type of parking, and other relevant information.

⁴⁴ For each applicable Special Project Category, list the specific criteria applied to determine applicability. For each non-applicable Special Project Category, indicate n/a.

⁴⁵For each applicable Special Project Category, state the maximum total LID Treatment Reduction Credit available. For Category C Special Projects also list the individual Location, Density, and Minimized Surface Parking Credits available.

⁴⁶: List all LID stormwater treatment systems proposed. For each type, indicate the percentage of the total amount of runoff identified in Provision C.3.d. for the Special Project's drainage area.

⁴⁷List all non-LID stormwater treatment systems proposed. For each type of non-LID treatment system, indicate: (1) the percentage of the total amount of runoff identified in Provision C.3.d. for the Special Project's drainage area, and (2) whether the treatment system either meets minimum design criteria published by a government agency or received certification issued by a government agency, and reference the applicable criteria or certification.

Special Projects Narrative

C.3.j.ii.(2) ► Table A - Public Projects Reviewed for Green Infrastructure

Project Name and Location ⁴⁸	Project Description	Status ⁴⁹	GI Included? ⁵⁰	Description of GI Measures Considered and/or Proposed or Why GI is Impracticable to Implement ⁵¹
Restore Chelsea Wetlands	Remove fill from a former wetlands area and restore to be a transitional area between the flood plain and Pinole Creek	Environmental Certification	Yes	Tidal grasslands to treat runoff and silt from Pinole Creek
Community Swim Center	Replaster pool and reroof	Design	No	No GI Opportunity, Bldg modification
Refugio Lake Park Improvements	Parking lot overlay	Design	No	Parking Lot pavement maintenance
Refugio Valley Lake	Retaining wall and Tennis court backboard repair	Under construction	No	Structure repairs
Sidewalk Replacement Project	Repair damaged CG&S and replace slabs damaged by tree roots	Ongoing	No	Repairs only
Annual Street Overlay	Repair of street pavement	Ongoing	No	Maintenance work within the existing footprint
Annual Repair of Garbage Truck Impacts	Repair of damage caused by overweight garbage trucks	Ongoing	No	Dedicated funding from solid waste fund
Restriping Project	Project to renew street pavement striping	Ongoing	No	Only involves restriping of streets
Grant Overlay Project OBAG	Grant funded repaving project	Under Construction	No	Too Late
Bay Trail	Retaining Wall Repairs	Design underway in 15-16	No	The project is only to repair retaining walls
Path to Transit	Repairs to sewer lines and paths	Construction is under way in 15-16 and 16-17	No	Too Late

⁴⁸ List each public project that is going through your agency's process for identifying projects with green infrastructure potential.

⁴⁹ Indicate status of project, such as: beginning design, under design (or X% design), projected completion date, completed final design date, etc.

⁵⁰ Enter "Yes" if project will include GI measures, "No" if GI measures are impracticable to implement, or "TBD" if this has not yet been determined.

⁵¹ Provide a summary of how each public infrastructure project with green infrastructure potential will include green infrastructure measures to the maximum extent practicable during the permit term. If review of the project indicates that implementation of green infrastructure measures is not practicable, provide the reasons why green infrastructure measures are impracticable to implement.

West Bay Trail	Funding for design and permits, no construction funding	Design Commenced	No	No funding allocated for GI
Fuel Oil Relocation	Relocation of Kinder Morgan and Shell Fuel Lines for new transit loop retaining walls	Planned for 17-18 however is currently unfunded	No	None, project is specific to relocate fuel lines for a retaining wall
Track/Signal Work	Railroad bridge, rail retaining wall, and track and signal work	Planned for 18-19 however is currently unfunded	NO	None, work is specific to the rail lines
Initial Rail station	Rail station building	Planned for 17-18 however is currently unfunded	NO	None, work is a rail station that would be regulated
Transit Loop	Creekside park and transit loop roadway and promenade	Planned for 17-18 however is currently unfunded	NO	Is a potential candidate project but no design has been commenced
Trails, Parks and Plazas	Civic park and park elements.	Planned for 17-18 however is currently unfunded	No	Is a potential candidate project but no design has been commenced
Inspect and Repair Sewer System	RWQCB compliance project to repair I&I	Ongoing in Phases	No	No potential for green infrastructure
Wastewater Treatment Plant Improvements	Expand treatment plant	Under construction	No	No potential for green infrastructure
Replace Corp Yard Mobile Offices	Replace existing trailers	In planning	No	No potential for green infrastructure as part of trailer replacement
Rehabilitate Lift Stations	Renovate city sewer lift stations	In planning	No	No potential green infrastructure in an equipment replacement project

C.3.j.ii.(2) ► Table B - Planned and/or Completed Green Infrastructure Projects

Project Name and Location ⁵²	Project Description	Planning or Implementation Status	Green Infrastructure Measures Included
None			

⁵² List each planned (and expected to be funded) public and private green infrastructure project that is not also a Regulated Project as defined in Provision C.3.b.ii. Note that funding for green infrastructure components may be anticipated but is not guaranteed to be available or sufficient.

Section 4 – Provision C.4 Industrial and Commercial Site Controls

Program Highlights and Evaluation

Highlight/summarize activities for reporting year:

Summary:

Refer to the C.4. Industrial and Commercial Site Controls section of the CCCWP's FY 16-17 Annual Report for a description of activities of the countywide program.

C.4.b.iii ► Potential Facilities List

List below or attach your list of industrial and commercial facilities in your Inspection Plan to inspect that could reasonably be considered to cause or contribute to pollution of stormwater runoff.

See attached Database of the Potential Facilities.

C.4.d.iii.(2)(a) & (c) ► Facility Inspections

Fill out the following table or attach a summary of the following information. Indicate your reporting methodology below.

<input checked="" type="checkbox"/>	Permittee reports multiple discrete potential and actual discharges as one enforcement action.	
<input type="checkbox"/>	Permittee reports the total number of discrete potential and actual discharges on each site.	
	Number	Percent
Total number of inspections conducted (C.4.d.iii.(2)(a))	21	
Number of enforcement actions or discrete number of potential and actual discharges	0	
Violations Enforcement actions or discrete number of potential and actual discharges resolved within 10 working days or otherwise deemed resolved in a longer but still timely manner (C.4.d.iii.(2)(c))	0	
Comments: None		

C.4.d.iii.(2)(b) ► Frequency and Type of Enforcement Conducted

Fill out the following table or attach a summary of the following information

	Enforcement Action (as listed in ERP) ⁵³	Number of Enforcement Actions Taken
Level 1	Verbal Warning	5
Level 2	Notice of Violation	0
Level 3	Formal Enforcement	0
Level 4	Legal Action	0
Total		0

C.4.d.iii.(2)(d) ► Frequency of Potential and Actual Non-stormwater Discharges by Business Category

Fill out the following table or attach a summary of the following information.

Business Category ⁵⁴	Number of Actual Discharges	Number of Potential Discharges
Commercial	0	0
Food Service	0	0
Property Mgmt.	0	0
	0	0

C.4.d.iii.(2)(e) ► Non-Filers

List below or attach a list of the facilities required to have coverage under the Industrial General Permit but have not filed for coverage:

There were no industries identified as non-filers during scheduled inspections during this fiscal year.

⁵³Agencies to list specific enforcement actions as defined in their ERPs.

⁵⁴List your Program's standard business categories.

C.4.e.iii ► Staff Training Summary						
Training Name	Training Dates	Topics Covered	No. of Industrial/ Commercial Site Inspectors in Attendance	Percent of Industrial/ Commercial Site Inspectors in Attendance	No. of IDDE Inspectors in Attendance	Percent of IDDE Inspectors in Attendance
Commercial/ Industrial Stormwater Inspection Training Workshop	May 10, 2017	The A to Z of Illicit Discharge Maintenance Crew Response to Illicit Discharges with Field Demonstrations Responding to Private Sewer Later Overflows: One City's Perspective Who Ya' Going to Call: Panel Session with Illicit Discharge Scenarios	1	100	1	100
CWEA –Annual Conference	April 26, 2016	Stormwater education and outreach Trash management	1	50		
Comments: None						

Section 5 – Provision C.5 Illicit Discharge Detection and Elimination

Program Highlights and Evaluation

Highlight/summarize activities for reporting year:

Provide background information, highlights, trends, etc.

Summary:

Refer to the C.5 Illicit Discharge Detection and Elimination section of the CCCWP's FY 16-17 Annual Report for description of activities at the countywide or regional level.

C.5.c.iii ► Complaint and Spill Response Phone Number

Summary of any changes made during FY 16-17:

"No Change".

C.5.d.iii.(1), (2), (3) ► Spill and Discharge Complaint Tracking

Spill and Discharge Complaint Tracking (fill out the following table or include an attachment of the following information)

	Number	Percentage
Discharges reported (C.5.d.iii.(1))	0	
Discharges reaching storm drains and/or receiving waters (C.5.d.iii.(2))		
Discharges resolved in a timely manner (C.5.d.iii.(3))		

Comments:

None

C.5.e.iii.(1) ► Control of Mobile Sources

(a) Provide your agency's minimum standards and BMPs for various types of mobile businesses (C.5.e.iii.(1)(a))

Refer to the C.5 Illicit Discharge Detection and Elimination section of the CCCWP's FY 16-17 Annual Report for description of activities at the countywide or regional level	
(b) Provide your agency's enforcement strategy for mobile businesses (C.5.e.iii.(1)(b))	
Refer to the C.5 Illicit Discharge Detection and Elimination section of the CCCWP's FY 16-17 Annual Report for description of activities at the countywide or regional level	
(c) Provide a list and summary of the specific outreach events and education conducted by your agency to the different types of mobile businesses operating within your jurisdiction (C.5.e.iii.(1)(c))	
Refer to the C.5 Illicit Discharge Detection and Elimination section of the CCCWP's FY 16-17 Annual Report for description of activities at the countywide or regional level	
(d) Provide number of inspections conducted at mobile businesses and/or job sites in 2016-2017 (C.5.e.iii.(1)(d)):	0
(e) Discuss enforcement actions taken against mobile businesses in 2016-2017 (C.5.e.iii.(1)(e))	
(f) List below or attach the list of mobile businesses operating within your agency's jurisdiction (C.5.e.iii.(1)(f))	
Refer to the C.5 Illicit Discharge Detection and Elimination section of the CCCWP's FY 16-17 Annual Report for description of activities at the countywide or regional level	
(g) Provide a list and summary of the county-wide or regional activities conducted, including sharing of mobile business inventories, BMP requirements, enforcement action information, and education (C.5.e.iii.(1)(g))	
Refer to the C.5 Illicit Discharge Detection and Elimination section of the CCCWP's FY 16-17 Annual Report for description of activities at the countywide or regional level. The CCCWP will be addressing all of the above requirements except for (d) and (e). Permittees will need to report on inspections of mobile businesses (d) and enforcement actions (e).	

Section 6 – Provision C.6 Construction Site Controls

C.6.e.iii.3.a, b, c, d ► Site/Inspection Totals			
Number of active Hillside Sites (sites disturbing < 1 acre of soil requiring storm water runoff quality inspection) (C.6.e.iii.3.a)	Number of High Priority Sites (sites disturbing < 1 acre of soil requiring storm water runoff quality inspection) (C.6.e.iii. 3.c)	Number of sites disturbing ≥ 1 acre of soil (C.6.e.iii.3.b)	Total number of storm water runoff quality inspections conducted (include only Hillside Sites, High Priority Sites, and sites disturbing 1 acre or more) (C.6.e.iii. 3.d)
0	0	2	22
Comments:			

C.6.e.iii.3.e ► Construction Related Storm Water Enforcement Actions		
	Enforcement Action (as listed in ERP) ⁵⁵	Number Enforcement Actions Issued
Level 1 ⁵⁶	Verbal Notice	20
Level 2	Notice of Violation	0
Level 3	Formal Enforcement	0
Level 4	Legal Action	0
Total		0

⁵⁵Agencies should list the specific enforcement actions as defined in their ERPs.

⁵⁶For example, Enforcement Level 1 may be Verbal Warning.

C.6.e.iii.3.f, ► Illicit Discharges

	Number
Number of illicit discharges, actual and those inferred through evidence at hillside sites, high priority sites and sites that disturb 1 acre or more of land (C.6.e.iii. 3.f)	0

C.6.e.iii.3.g ► Corrective Actions

Indicate your reporting methodology below.

<input checked="checked" type="checkbox"/>	Permittee reports multiple discrete potential and actual discharges as one enforcement action.
<input type="checkbox"/>	Permittee reports the total number of discrete potential and actual discharges on each site.

	Number
Enforcement actions or discrete potential and actual discharges fully corrected within 10 business days after violations are discovered or otherwise considered corrected in a timely period (C.6.e.iii. .3.g)	0
Total number of enforcement actions or discrete potential and actual discharges for the reporting year	0
Comments: None	

C.6.e.iii.(4) ► Evaluation of Inspection Data

Describe your evaluation of the tracking data and data summaries and provide information on the evaluation results (e.g., data trends, typical BMP performance issues, comparisons to previous years, etc.).

Description:
Evaluation of the inspection data shows clear and consistent actions from the City's contract inspector to enforce all of the necessary BMPs and the City ordinance. All of the actions for this reporting year fall under the Level 1 Enforcement Action category. Based on the review of the inspection data, all of the warning notices were addressed and resolved.

C.6.e.iii.(4) ► Evaluation of Inspection Program Effectiveness

Describe what appear to be your program's strengths and weaknesses, and identify needed improvements, including education and outreach.

Description:
The City uses contract inspectors to perform all C.6 stormwater quality inspections. For this reporting year, the City had two active sites, a roadway project, and a residential development. A strength of the program is that our inspectors are regularly on the projects sites. They routinely make recommendations to contractors to improve their stormwater site management to avoid future stormwater violations.

C.6.f.iii ► Staff Training Summary			
Training Name	Training Dates	Topics Covered	No. of Inspectors in Attendance
Training was held in FY 15-16			

Section 7 – Provision C.7. Public Information and Outreach

C.7.b.i.1 ► Outreach Campaign

Summarize outreach campaign. Include details such as messages, creative developed, and outreach media used. The detailed outreach campaign report may be included as an attachment. If outreach campaign is being done by participation in a countywide or regional program, refer to the separate countywide or regional Annual Report.

Summary:

Refer to Section 7 in the CCCWP's FY 16/17 Annual Report for a summary of activities related to the planning and development of an Outreach Campaign.

C.7.c. Stormwater Pollution Prevention Education

"No Change".

C.7.d ► Public Outreach and Citizen Involvement Events

Describe general approach to event selection. Provide a list of outreach materials and giveaways distributed. Use the following table for reporting and evaluating public outreach events		
Event Details	Description (messages, audience)	Evaluation of Effectiveness
Our Water Our World	See the Fiscal Year 16/17 Group Program Annual Report, Section C.7 for further information.	See the Fiscal Year 16/17 Group Program Annual Report, Section C.7 for further information.
Community Watershed Stewardship Grant Program	See the FY 16/17 Group Program Annual Report, Section C.7 for event description.	See the FY 16/17 Group Program Annual Report, Section C.7, for further details regarding the effectiveness of this event.
CCCCleanWater.org Community Calendar	See the FY 16/17 Group Program Annual Report, Section C.7 for event description.	See the FY 16/17 Group Program Annual Report, Section C.7, for further details regarding the effectiveness of this event.
MyGreenGarden.org	See the FY 16/17 Group Program Annual Report, Section C.7 for event description.	See the FY 16/17 Group Program Annual Report, Section C.7, for further details regarding the effectiveness of this event.
Bringing Back the Natives Garden Tour, May 2017	Tour to encourage landscaping using native plants, minimizing pesticides and fertilizer use, water conservation, mulching and composting, etc. for East Bay residents. One garden in Moraga was featured on this year's tour.	See the FY 16/17 Group Program Annual Report, Section C.7, for further details regarding the effectiveness of this event.
Fish Risk Reduction Program for Mercury and PCBs	Public Outreach in the form of notices and warning posters posted at harbor/marina kiosks and fishing piers. Additionally, brochures and posters have been	See the FY 16/17 Group Program Annual Report, Section C.7, for further details regarding the effectiveness of this event.

	distributed to fishing supply stores. Information is available on the CCCWP website.	
Our Water Our World	See the Fiscal Year 16/17 Group Program Annual Report, Section C.7 for further information.	See the Fiscal Year 16/17 Group Program Annual Report, Section C.7 for further information.

C.7.e. ► Watershed Stewardship Collaborative Efforts

Summarize watershed stewardship collaborative efforts and/or refer to a regional report that provides details. Describe the level of effort and support given (e.g., funding only, active participation etc.). State efforts undertaken and the results of these efforts. If this activity is done regionally refer to a regional report.

Evaluate effectiveness by describing the following:

- Efforts undertaken
- Major accomplishments

Summary:

Please see the CCCWP's Fiscal Year 2016-2017 Annual Report, Section 7 Public Information and Outreach for a full description of BASMAA and the CCCWP's encouragement and support of various Watershed Stewardship Collaborative Efforts, which includes involvement in the 2017 Community Watershed Stewardship Grant Program, sponsorship of the 2016 Bringing Back the Natives Garden Tour, CCCWP-staff participation in the Contra Costa Watershed Forum, support of the Green Business Program, and the Program's website CCCleanWater.org Community Calendar. Each of these activities/programs is described in full, including an evaluation of effectiveness, in the CCCWP Annual Report.

C.7.f. ► School-Age Children Outreach

Summarize school-age children outreach programs implemented. A detailed report may be included as an attachment.

Use the following table for reporting school-age children outreach efforts.

Program Details	Focus & Short Description	Number of Students/Teachers reached	Evaluation of Effectiveness
Mr. Funnelhead	Mr. Funnelhead entertains while he teaches about the importance of storm drain pollution and the recycling of used motor oil and filters. Along the way, Mr. Funnelhead encounters different characters improperly disposing used motor oil. The shows include a state of the art sound system, lights, special effects and quality actors as well as a diorama. Mr. Funnelhead attended both the Community Faire and the Wine and Pear Festival.	See the C.7 Section of the CCCWP's FY 16-17 Annual Report for further information.	See the C.7 Section of the CCCWP's FY 16-17 Annual Report for further information.

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Permittee Name: City of Hercules

C.7 – Public Information and Outreach

"Be Classy Not Trashy" Youth Outreach Litter Campaign	See the C.7 Section of the CCCWP's FY 16-17 Annual Report for further information.	See the C.7 Section of the CCCWP's FY 16-17 Annual Report for further information.	See the C.7 Section of the CCCWP's FY 16-17 Annual Report for further information.
2017 Community Watershed Stewardship Grant Program	See the C.7 Section of the CCCWP's FY 16-17 Annual Report for further information.	See the C.7 Section of the CCCWP's FY 16-17 Annual Report for further information.	See the C.7 Section of the CCCWP's FY 16-17 Annual Report for further information.

Section 9 – Provision C.9 Pesticides Toxicity Controls

C.9.a. ► Implement IPM Policy or Ordinance						
Is your municipality implementing its IPM Policy/Ordinance and Standard Operating Procedures?				<input checked="checked" type="checkbox"/>	Yes	<input type="checkbox"/> No
If no, explain:						
Report implementation of IPM BMPs by showing trends in quantities and types of pesticides used, and suggest reasons for increases in use of pesticides that threaten water quality, specifically organophosphates, pyrethroids, carbamates fipronil, indoxacarb, diuron, and diamides. A separate report can be attached as evidence of your implementation.						
Trends in Quantities and Types of Pesticide Active Ingredients Used⁵⁷						
Pesticide Category and Specific Pesticide Active Ingredient Used	Amount ⁵⁸					
	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Organophosphates	0	0				
Pyrethroids (see footnote #57 for list of active ingredients)	0	0				
Carbamates	0	0				
Fipronil - Termidor SC	48oz.	29oz.				
Indoxacarb	Reporting not required in FY 15-16	0				
Diuron	Reporting not required in FY 15-16	0				
Diamides	Reporting not required in FY 15-16	0				
IPM Tactics and Strategies Used:						

⁵⁷Includes all municipal structural and landscape pesticide usage by employees and contractors.

⁵⁸Weight or volume of the active ingredient, using same units for the product each year. Please specify units used. The active ingredients in any pesticide are listed on the label. The list of active ingredients that need to be reported in the pyrethroids class includes: metofluthrin, bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambdacyhalothrin, and permethrin.

City contractors use IPM strategies regularly. This has been recorded in the pesticide usage reports provided to the state. Contractors use products containing non-toxic alternatives. For example the use of Rosemary & Peppermint Oils are used at City owned facilities in lieu of toxic materials. Additionally, the use of Fipronil was reduced this year						
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C.9.b ► Train Municipal Employees

Enter the number of employees that applied or used pesticides (including herbicides) within the scope of their duties this reporting year.	0
Enter the number of these employees who received training on your IPM policy and IPM standard operating procedures within this reporting year.	0
Enter the percentage of municipal employees who apply pesticides who have received training in the IPM policy and IPM standard operating procedures within this reporting year.	0
Type of Training: N/A	

C.9.c ► Require Contractors to Implement IPM

Did your municipality contract with any pesticide service provider in the reporting year, for either landscaping or structural pest control?	X	Yes		No
If yes, did your municipality evaluate the contractor's list of pesticides and amounts of active ingredients used?		Yes		No,
If your municipality contracted with any pesticide service provider, briefly describe how contractor compliance with IPM Policy/Ordinance and SOPs was monitored				
City contractors use IPM strategies regularly. This has been recorded in the pesticide usage reports provided to the state. Contractors use products containing non-toxic alternatives. For example the use of Rosemary & Peppermint Oils are used at City owned facilities in lieu of toxic materials. Additionally, the use of Fipronil was reduced this year.				

C.9.d ► Interface with County Agricultural Commissioners

Did your municipality communicate with the County Agricultural Commissioner to: (a) get input and assistance on urban pest management practices and use of pesticides or (b) inform them of water quality issues related to pesticides,	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
If yes, summarize the communication. If no, explain. Refer to the CCCWP's FY 16-17 Annual Report, Section C.9 Pesticide Toxicity Controls for a summary of the CCCWP's communication with Contra Costa County Agricultural Commissioner. Summarize any local communication with the County Agricultural Commissioner here.				
Did your municipality report any observed or citizen-reported violations of pesticide regulations (e.g., illegal handling and applications of pesticides) associated with stormwater management, particularly the California Department of Pesticide Regulation (DPR) surface water protection regulations for outdoor, nonagricultural use of pyrethroid pesticides by any person performing pest control for hire.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No

C.9.e.ii (1) ► Public Outreach: Point of Purchase

Provide a summary of public outreach at point of purchase, and any measurable awareness and behavior changes resulting from outreach (here or in a separate report); OR reference a report of a regional effort for public outreach in which your agency participates.
Summary: See the C.9 Pesticides Toxicity Control section of CCCWP's FY 16-17 Annual Report for information on point of purchase public outreach conducted countywide and regionally."

C.9.e.ii (2) ► Public Outreach: Pest Control Contracting Outreach

Provide a summary of outreach to residents who use or contract for structural pest control and landscape professionals); AND/OR reference a report of a regional effort for outreach to residents who hire pest control and landscape professionals in which your agency participates.
Summary: See the C.9 Pesticides Toxicity Control section of CCCWP's FY 16-17 Annual Report for information on point of purchase public outreach conducted countywide and regionally.

C.9.e.ii.(3) ► Public Outreach: Pest Control Operators

Provide a summary of public outreach to pest control operators and landscapers and reduced pesticide use (here or in a separate report); **AND/OR** reference a report of a regional effort for outreach to pest control operators and landscapers in which your agency participates.

Summary:

See the C.9 Pesticides Toxicity Control section of CCCWP's FY 16-17 Annual Report for a summary of our participation in and contributions towards countywide and regional public outreach to pest control operators and landscapers to reduce pesticide use.

C.9.f ► Track and Participate in Relevant Regulatory Processes

Summarize participation efforts, information submitted, and how regulatory actions were affected; **AND/OR** reference a regional report that summarizes regional participation efforts, information submitted, and how regulatory actions were affected.

Summary:

During FY 16-17, we participated in regulatory processes related to pesticides through contributions to the CCCWP, BASMAA and CASQA. For additional information, see the Regional Report submitted by BASMAA on behalf of all MRP Permittees.

Section 10 - Provision C.10 Trash Load Reduction

C.10.a.i ► Trash Load Reduction Summary

For population-based Permittees, provide the overall trash reduction percentage achieved to-date within the jurisdictional area of your municipality that generates problematic trash levels (i.e., Very High, High or Moderate trash generation). Base the reduction percentage on the information presented in C.10.b i-iv and C.10.e.i-ii. Provide a discussion of the calculation used to produce the reduction percentage, including whether the 70% mandatory trash load reduction deadline was attained. If not attained, attach and include reference to a Plan to comply with the deadline in a timely manner, which should include the Permittee's plan and schedule to install full capture systems/devices.

Trash Load Reductions

Percent Trash Reduction in All Trash Management Areas (TMAs) due to Trash Full Capture Systems (as reported C.10.b.i)	10.1%
Percent Trash Reduction in all TMAs due to Control Measures Other than Trash Full Capture Systems (as reported in C.10.b.ii) ⁵⁹	0%
Percent Trash Reduction due to Jurisdictional-wide Source Control Actions (as reported in C.10.b.iv) ¹	5%
Subtotal for Above Actions	
Trash Offsets (Optional)	
Offset Associated with Additional Creek and Shoreline Cleanups (as reported in C.10.e.i)	0%
Offset Associated with Direct Trash Discharges (as reported in C.10.e.ii)	0%
Total (Jurisdictional-wide) % Trash Load Reduction in FY 16-17	15%

Discussion of Trash Load Reduction Calculation and Attainment of the 70% Mandatory Deadline:

The City reported a 15% trash load reduction in its FY 15-16 Annual Report. Because the City did not achieve the non-mandatory performance guideline of 60% by July 1, 2016, a Trash Action Plan was prepared and submitted to the Water Board to document the description and schedule of additional trash load reduction control actions that would be implemented to attain 70% percent reduction by July 1, 2017.

During FY 16-17, the City began implementation of the action plan.

⁵⁹ See Appendix 10-1-1 for changes between 2009 and FY 16-17 in trash generation by TMA as a result of Full Capture Systems and Other Measures.

- **Conducting a Citywide Trash Full Capture Evaluation C.10.b.ii** – The City conducted a City-wide Full Capture reconnaissance of all inlets in Medium and High Trash Generation Areas. This action identified 31 eligible inlets for installation of localized Full Trash Capture Devices. The City is currently reviewing proposals from eligible vendors.
- **Updating the City Stormwater Ordinance** – In addition to the Full Trash Capture installation plan, City staff will bring an updated Ordinance to Council to ensure that commercial property within the City's MS4 are in compliance with the Permit requirements for trash.
- **Securing Funding for Future Trash Control Measure Implementation** – The City has identified funding for trash capture device installation and maintenance.

Although the City began implementation of it's action plan, the load reduction for FY 16-17 (15.1%) did not achieve the 70% mandatory trash load reduction deadline by July 1, 2017. The City of Hercules is dedicated to reducing trash in the City that is discharged to their MS4, however, due to multiple constraints; reduction goals have not been achieved in the timetable laid out in the MRP.

Consistent with MRP provision C.10.f.v.b, the City has attached a report (see Attachment) that describes actions to comply with the 70% mandatory reduction deadline in a timely manner. The report includes a plan and schedule for implementation of full capture systems and other actions sufficient to attain the required 70% reduction.

C.10.a.iii ► Mandatory Trash Full Capture Systems

Provide the following:

- 1) Total number and types of full capture systems (publicly and privately-owned) installed prior to FY 16-17, during FY 16-17, and to-date, including inlet-based and large flow-through or end-of-pipe systems, and qualifying low impact development (LID) required by permit provision C.3.
- 2) Total land area (acres) treated by full capture systems for population-based Permittees and total number of systems for non-population based Permittees compared to the total required by the permit.

Type of System	# of Systems	Areas Treated (Acres)
Installed Prior to FY 16-17		

HDS Units	10	284
LID Facilities	1	10
Installed in FY 16-17		
	0	0
Total for all Systems Installed To-date	11	294 or 300
Treatment Acreage Required by Permit (Population-based Permittees)		11
Total # of Systems Required by Permit (Non-population-based Permittees)		N/A

C.10.b.i ► Trash Reduction - Full Capture Systems				
Provide the following:				
1) Jurisdictional-wide trash reduction in FY 16-17 attributable to trash full capture systems implemented in each TMA; 2) The total number of full capture systems installed to-date in your jurisdiction; 3) The percentage of systems in FY 16-17 that exhibited significant plugged/blinded screens or were >50% full when inspected or maintained; 4) A narrative summary of any maintenance issues and the corrective actions taken to avoid future full capture system performance issues; and 5) A certification that each full capture system is operated and maintained to meet the full capture system requirements in the permit.				
TMA	Jurisdiction-wide Reduction (%)	Total # of Full Capture Systems	% of Systems Exhibiting Plugged/Blinded Screens or >50% full in FY 16-17	Summary of Maintenance Issues and Corrective Actions
1	0.0	11	0	10 HDS Units were serviced. All of the units exhibited normal sediment and trash collection. Trash was separated out from the sediment removed by the Vactor truck.
2	0.0			
3	0.0			
4	8.1			
5	0.0			
6	0.0			
7	0.0			
8	0.0			
9	0.0			
Total	8.1			
Certification Statement: The City of Hercules certifies that a full capture system maintenance and operation program is currently being implemented to maintain all applicable systems in manner that meets the full capture system requirements included in the Permit.				

C.10.b.ii ► Trash Reduction – Other Trash Management Actions (PART A)	
Provide a summary of trash control actions other than full capture systems or jurisdictional source controls that were implemented within each TMA, including the types of actions, levels and areal extent of implementation, and whether actions are new, including initiation date.	
TMA	Summary of Trash Control Actions Other than Full Capture Systems
1	Street sweeping within this TMA was increased from 2x/monthly to weekly in 2015. If visual assessment conclude that additional actions are required, the City plans to send anti-littering notifications to property owners or increase storm drain inspection and cleaning from 1x/annually to 2x/annually.
2	Street sweeping within this TMA was increased from 2x/monthly to weekly in 2015. If visual assessment conclude that additional actions are required, the City plans to send anti-littering notifications to property owners or increase storm drain inspection and cleaning from 1x/annually to 2x/annually.
3	Street sweeping within this TMA was increased from 2x/monthly to weekly in 2015. Daily litter pickup is also conducted by City staff, work alternative program and landscape maintenance contractors. If visual assessment conclude that additional actions are required, the City plans improve trash bin management within and around the park or increase storm drain inspection and cleaning from 1x/annually to 2x/annually.
4	LID Facility
5	No action taken.
6	The City is involved in the Trash Abatement Initiatives and Partnership between West County Cities/Contra Costa County and the West County Unified School District. The partnership allows the cities and the school district to communicate and combine efforts in reducing trash surrounding schools. The schools in Hercules have classroom programs that educate the students regarding trash and recycling. School District staff regularly conducts litter pickup within school sites. In addition, the street sweeping along the frontage of the Hercules Middle/High School was increased from 2x/monthly to weekly. Schools have been changed to non-jurisdictional.
7	No action taken.
8	Increased on-land litter pickup efforts by City staff, work alternative program and landscape maintenance contractors. If visual assessment conclude that additional actions are required, the City plans improve trash bin management within and around the park.
9	No action taken.

C.10.b.ii ► Trash Reduction – Other Trash Management Actions (PART B)

Provide the following:

- 1) A summary of the on-land visual assessments in each TMA (or control measure area), including the street miles or acres available for assessment (i.e., those associated with VH, H, or M trash generation areas not treated by full capture systems), the street miles or acres assessed, the % of available street miles or acres assessed, and the average number of assessments conducted per site within the TMA; and
- 2) Percent jurisdictional-wide trash reduction in FY 16-17 attributable to trash management actions other than full capture systems implemented in each TMA.

TMA ID or (as applicable) Control Measure Area	Total Street Miles ⁶⁰ or Acres Available for Assessment	Summary of On-land Visual Assessments			Jurisdictional-wide Reduction (%)
		Street Miles or Acres Assessed	% of Applicable Street Miles or Acres Assessed	Ave. # of Assessments Conducted at Each Site	
1	0.4	0.0	0.0	0	0
2	1.3	0.0	0.0	0	0
3	0.8	0.0	0.0	0	0
4	0.0	0.0	0.0	0	0
5	0.4	0.0	0.0	0	0
6	1.6	0.0	0.0	0	0
7	0.1	0.0	0.0	0	0
8	0.1	0.0	0.0	0	0
9	0.0	0.0	0.0	0	0
Total		0.0	0.0	0	0.0

⁶⁰ Linear feet are defined as the street length and do not include street median curbs.

C.10.b.iv ► Trash Reduction – Source Controls				
Provide a description of each jurisdictional-wide trash source control action implemented to-date. For each control action, identify the trash reduction evaluation method(s) used to demonstrate on-going reductions, summarize the results of the evaluation(s), and estimate the associated reduction of trash within your jurisdictional area. Note: There is a maximum of 10% total credit for source controls.				
Source Control Action	Summary Description & Dominant Trash Sources and Types Targeted	Evaluation/Enforcement Method(s)	Summary of Evaluation/Enforcement Results To-date	% Reduction
Single-use Plastic Bag Ordinance or Policy	Adopted on September 9 th 2014, Single-use Bag Ordinance regulates the use of plastic and recyclable pager carryout bags and promotes the use of reusable bags.	With the current staffing available within the City, evaluations and assessments of the ordinance have not been implemented to date. Outreach and evaluation is something the City would like to be able to gather information on. City staff has reached out to neighboring municipalities to gather information on the finding that they have from their evaluation programs.	Per the Environmental Impact Report conducted by RecycleMore the Single-Use Bag Ordinance would reduce single-use plastic bags by 95%; staff is proposing a more moderate 75% reduction for this reporting period. This is inline with other municipalities that are neighbors to Hercules. Based on the 75% anticipated single use bag reduction, and the EIR projection of 95% assumed compliance rate, Hercules calculates a 5% (8% x 75% x 95%) trash load reduction attributable to the implementation of the Single-Use Bag Ordinance.	5%

C.10.b.iv ► Trash Reduction – Source Controls				
Provide a description of each jurisdictional-wide trash source control action implemented to-date. For each control action, identify the trash reduction evaluation method(s) used to demonstrate on-going reductions, summarize the results of the evaluation(s), and estimate the associated reduction of trash within your jurisdictional area. Note: There is a maximum of 10% total credit for source controls.				
Expanded Polystyrene Food Service Ware Ordinance or Policy	Adopted on May 13 th 2008, the Expanded Polystyrene Food Service Ware Ordinance prohibits the use or distribution of expanded polystyrene utensils.	Per the Environmental Impact Report conducted by RecycleMore the Single-Use Bag Ordinance would reduce single-use plastic bags by 95%; staff is proposing a more moderate 75% reduction for this reporting period. This is inline with other municipalities that are neighbors to Hercules. Based on the 75% anticipated single use bag reduction, and the EIR projection of 95% assumed compliance rate, Hercules calculates a 5% (8% x 75% x 95%) trash load reduction attributable to the implementation of the Single-Use Bag Ordinance.	The City has performed a brief review of other neighboring Municipalities that indicates compliance with the Ordinance to be ranging from 75-90%. The City of Hercules is not looking to take a credit for this ban in the percent reduction although the City does feel that this ban has had beneficial impacts on the percent reduction	0%

C.10.c ► Trash Hot Spot Cleanups							
Provide the FY 16-17 cleanup date and volume of trash removed during each MRP-required Trash Hot Spot cleanup during each fiscal year listed. Indicate whether the site was a new site in FY 16-17.							
Trash Hot Spot	New Site in FY 16-17 (Y/N)	FY 16-17 Cleanup Date(s)	Volume of Trash Removed (cubic yards)				
			FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
3900 San Pablo Ave	N		2 cy	2 cy	2 cy	1.5 cy	

C.10.d ► Long-Term Trash Load Reduction Plan	
Provide descriptions of significant revisions made to your Long-term Trash Load Reduction Plan submitted to the Water Board in February 2014. Describe significant changes made to primary or secondary trash management areas (TMA), baseline trash generation maps, control measures, or time schedules identified in your plan. Indicate whether your baseline trash generation map was revised and if so what information was collected to support the revision. If your baseline trash generation map was revised, attach it to your Annual Report.	
Description of Significant Revision	Associated TMA
City corporation yard and two private industrial parcels are low generating parcel and were removed from TMA#5.	TMA #5
Caltrans corporation yard is non-jurisdictional and was removed from TMA#5.	TMA #5
K-12 public schools has been reclassified as non-jurisdictional and removed from TMA#6.	TMA #6

C.10.e. ► Trash Reduction Offsets (Optional)			
Provide a summary description of each offset program implemented, the volume of trash removed, and the offset claimed in FY 16-17. Also, for additional creek and shoreline cleanups, describe the number and frequency of cleanups conducted, and the locations and cleanup dates. For direct discharge control programs approved <u>by the Water Board Executive Officer</u> , also describe the results of the assessments conducted in receiving waters to demonstrate the effectiveness of the control program. Include an Appendix that provides the calculations and data used to determine the trash reduction offset.			
Offset Program	Summary Description of Actions and Assessment Results	Volume of Trash (CY) Removed/Controlled in FY 16-17	Offset (% Jurisdiction-wide Reduction)
Additional Creek and Shoreline Cleanups (Max 10% Offset)	N/A	N/A	0%
Direct Trash Discharge Controls (Max 15% Offset)	N/A	N/A	0%

Appendix 10-1-1 Baseline trash generation and areas addressed by full capture systems and other control measures in Fiscal Year 16-17.

TMA	2009 Baseline Trash Generation (Acres)					Trash Generation (Acres) in FY 16-17 After Accounting for Full Capture Systems					Jurisdiction-wide Reduction via Full Capture Systems (%)	Trash Generation (Acres) in FY 16-17 After Accounting for Full Capture Systems <u>and</u> Other Control Measures					Jurisdiction-wide Reduction via <u>Other Control Measures</u> (%)	Jurisdiction-wide Reduction via Full Capture <u>AND</u> Other Control Measures (%)
	L	M	H	VH	Total	L	M	H	VH	Total		L	M	H	VH	Total		
1	0	0	11	0	11	0	0	0	0	0	0.0						0.0	0.0
2	0	30	0	0	30	0	0	0	0	0	0.0						0.0	0.0
3	20	0	0	0	20	0	0	0	0	0	0.0						0.0	0.0
4	2	10	0	0	12	0	10	0	0	10	10.1						0.0	10.1
5	8	0	0	0	8	0	0	0	0	0	0.0						0.0	0.0
6	0	6	0	0	6	0	0	0	0	0	0.0						0.0	0.0
7	0	5	0	0	5	0	0	0	0	0	0.0						0.0	0.0
8	10	0	0	0	10	0	0	0	0	0	0.0						0.0	0.0
9	3751	0	0	0	3751	284	0	0	0	284	0.0						0.0	0.0
Totals	3792	51	11	0	3855	284	10	0	0	294	10.1						0.0	10.1

Section 11 - Provision C.11 Mercury Controls

C.11.a ► Implement Control Measures to Achieve Mercury Load Reductions

C.11.b ► Assess Mercury Load Reductions from Stormwater

See the CCCWP's FY 2016-17 Annual Report for:

- Documentation of mercury control measures implemented in our agency's jurisdictional area for which load reductions will be reported and the associated management areas;
- A description of how the BASMAA Interim Accounting Methodology⁶¹ was used to calculate the mercury load reduced by each control measure implemented in our agency's jurisdictional area and the calculation results (i.e., the estimated mercury load reduced by each control measure); and
- Supporting data and information necessary to substantiate the load reduction estimates.

C.11.c ► Plan and Implement Green Infrastructure to Reduce Mercury Loads

If the regional or countywide mercury load reductions required by this sub-provision via Green Infrastructure by the end of the permit term are not met, will Permittees in your county use the default population-based method to calculate the portion of the countywide load reduction required of each Permittee?

X

Yes

No

C.11.e ► Implement a Risk Reduction Program

A summary of the CCCWP and regional accomplishments for this sub-provision are included in the C.11 Mercury Controls section of the CCCWP's FY 2016-17 Annual Report and/or a BASMAA regional report.

⁶¹BASMAA 2017. Interim Accounting Methodology for TMDL Loads Reduced, Version 1.0. Prepared for BASMAA by Geosyntec Consultants and EOA, Inc., September 19, 2016.

Section 12 - Provision C.12 PCBs Controls

C.12.a ► Implement Control Measures to Achieve PCBs Load Reductions
C.12.b ► Assess PCBs Load Reductions from Stormwater

See the CCCWP's FY 2016-17 Annual Report for:

- Documentation of PCBs control measures implemented in our agency's jurisdictional area for which load reductions will be reported and the associated management areas;
- A description of how the BASMAA Interim Accounting Methodology⁶² was used to calculate the PCBs load reduced by each control measure implemented in our agency's jurisdictional area and the calculation results (i.e., the estimated PCBs load reduced by each control measure); and
- Supporting data and information necessary to substantiate the load reduction estimates.

If the regional and countywide PCBs load reductions required by C.12.a are not met, will Permittees in your county use the default population-based method to calculate the portion of the countywide load reduction required of each Permittee?

X

Yes

No

C.12.f ► Manage PCB-Containing Materials and Wastes During Building Demolition Activities So That PCBs Do Not Enter Municipal Storm Drains

A summary of CCCWP and regional accomplishments for this sub-provision is included in the C.12 PCBs Controls section of CCCWP's FY 2016-17 Annual Report and/or a BASMAA regional report.

Does your agency plan to seek exemption from this requirement?

Yes

X

No

⁶²BASMAA 2017. Interim Accounting Methodology for TMDL Loads Reduced, Version 1.0. Prepared for BASMAA by Geosyntec Consultants and EOA, Inc., September 19, 2016.

C.12.g. ► Fate and Transport Study of PCBs: Urban Runoff Impact on San Francisco Bay Margins

A summary of CCCWP and regional accomplishments for this sub-provision are included in the C.12 PCBs Controls section of the CCCWP's FY 2016-17 Annual Report and/or a BASMAA regional report.

C.12.h ► Implement a Risk Reduction Program

A summary of CCCWP and regional accomplishments for this sub-provision are included in the C.12 PCBs Controls section of the CCCWP's FY 2016-17 Annual Report and/or a BASMAA regional report.

Section 13 - Provision C.13 Copper Controls

C.13.a.iii ► Manage Waste Generated from Cleaning and Treating of Copper Architectural Features

Provide summaries of permitting and enforcement activities to manage waste generated from cleaning and treating of copper architectural features, including copper roofs, during construction and post-construction.

Summary:

Plan check staff are trained to identify these features. Building permit staff also warns contractors against flushing copper piping systems and advises that the water must be captured and disposed of properly.

C.13.b.iii ► Manage Discharges from Pools, Spas, and Fountains that Contain Copper-Based Chemicals

Provide summaries of any enforcement activities related to copper-containing discharges from pools, spas, and fountains.

Summary:

There are no enforcement actions regarding copper-containing discharges from pools, spas and fountains.

C.13.c.iii ► Industrial Sources Copper Reduction Results

Based upon inspection activities conducted under Provision C.4, highlight copper reduction results achieved among the facilities identified as potential users or sources of copper, facilities inspected, and BMPs addressed.

Summary:

The City does not have any facilities that have been identified as potential users or sources of copper.

Section 15 -Provision C.15 Exempted and Conditionally Exempted Discharges

C.15.b.vi.(2) ► Irrigation Water, Landscape Irrigation, and Lawn or Garden Watering

Provide implementation summaries of the required BMPs to promote measures that minimize runoff and pollutant loading from excess irrigation. Generally, the categories are:

- Promote conservation programs
- Promote outreach for less toxic pest control and landscape management
- Promote use of drought tolerant and native vegetation
- Promote outreach messages to encourage appropriate watering/irrigation practices
- Implement Illicit Discharge Enforcement Response Plan for ongoing, large volume landscape irrigation runoff.

Summary:

The City through the CCCWP promote and implement several programs and measures to minimize pollutant loading from excess irrigation including, but not limited to:

- **Stormwater C.3 Guidebook adopted by ordinance, which promotes to land development professionals landscaping designed to: 1) minimize irrigation and runoff; 2) promote infiltration of runoff where appropriate; and, 3) minimize use of fertilizers and pesticides using pest-resistant plants that are suited to site conditions (e.g., soil and climate).**
- **Green Business Program, which promotes to businesses a variety of measures such as using drought tolerant plantings, mulching, carefully monitoring irrigation schedules and needs, and implementing Integrated Pest Management.**
- **Our Water Our World (OWOW) Program, which promotes to consumers at the point of purchase less toxic alternatives to combating lawn and garden pests.**
- **Bay Friendly Landscaping and Gardening Training and Certification Program, which promotes to landscapers a variety of measures designed to reduce waste and prevent stormwater pollution.**

Attachment C.3.j.i.(5).(a) GI Framework Resolution

RESOLUTION NO. 17-050

RESOLUTION APPROVING THE GREEN INFRASTRUCTURE PLAN FRAMEWORK TO COMPLY WITH MUNICIPAL REGIONAL STORMWATER PERMIT C.3.J.I (1)

WHEREAS, the Regional Water Quality Control Board issued a new Municipal Regional Stormwater Permit on November 15, 2015 that became effective January 1, 2016; and

WHEREAS, said Permit has Provision C.3.j which requires the City implement Green Infrastructure into the storm drain infrastructure through a Green Infrastructure Plan to be implemented by June 30, 2019; and

WHEREAS, the City is to approve a Green Infrastructure Plan Framework by June 30, 2017 that will act as the guidance for the development of the Plan.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Hercules hereby adopts a resolution approving the Green Infrastructure Plan Framework to comply with Municipal Regional Stormwater Permit Provision C.3.J.I(1).

The foregoing Resolution was duly and regularly adopted at a regular meeting of the City Council of the City of Hercules held on the 27th day of June, 2017 by the following vote of the Council:

AYES: COUNCIL MEMBERS: Boulanger, Esquivias, Romero, Vice Mayor Kelley, Mayor de Vera

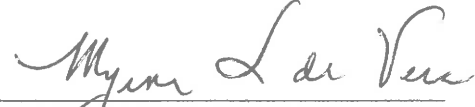
NOES: None.

ABSTAIN: None.

ABSENT: None.



Lili Martin, MM
Administrative Services Director/City Clerk


Myrna de Vera, Mayor

City of Hercules



Green Infrastructure Plan Framework

Regional Water Quality Control Board

Municipal Regional Stormwater Permit

Order R2-2015-0049 Provision C.3.j.i.(1)

Adopted June 27, 2017
By City Council Resolution 2017-050

ACRONYMS AND DEFINITIONS

ABAG	Association of Bay Area Governments
BASMAA	Bay Area Stormwater Management Agencies Association
CCCWP	Contra Costa Clean Water Program
CCSWRP	Contra Costa Watersheds Stormwater Resource Plan
CITY	City of Pleasant Hill
GIS	Geographic Information System
IRWMP	Integrated Regional Water Management Plan
MRP	Municipal Regional Stormwater Permit
MTC	Metropolitan Transportation Commission
NPDES	National Pollutant Discharge Elimination System
PCBs	Polychlorinated Biphenyls
PLAN	Green Infrastructure Plan
RAA	Reasonable Assurance Analysis
TMDL	Total Maximum Daily Load

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Attachment 1 BASMAA Guidance for Identifying Green Infrastructure
Potential in Municipal Capital Improvement Program Projects

Attachment 2 Green Infrastructure Planning Tasks, Roles and Timeframes

0 • Summary

To implement the Clean Water Act, and with direction from the California Regional Water Quality Control Board for the San Francisco Bay Region, Bay Area municipalities are incorporating green infrastructure into the development and renewal of the urban landscape.

Green infrastructure refers to the construction and retrofit of storm drainage to reduce runoff volumes, disperse runoff to vegetated areas, harvest and use runoff where feasible, promote infiltration and evapotranspiration, and use bioretention and other natural systems to detain and treat runoff before it reaches our creeks and Bay. Green infrastructure facilities include, but are not limited to, pervious pavement, infiltration basins, bioretention facilities or “raingardens”, green roofs, and rainwater harvesting systems. Green infrastructure can be incorporated into construction on new and previously developed parcels, as well as new and rebuilt streets, roads, and other infrastructure within the public right-of-way.

This Framework outlines the tasks, schedule, and budget necessary for the City of Hercules (City) to develop a Green Infrastructure Plan (Plan). The Plan for the City is required by the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (MRP)¹, and must be submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region by September 2019.

The Framework describes required elements of the Plan, including the following:

- Staff coordination and public outreach
- Mapped and prioritized areas for potential and planned projects
- Targets for the amount of impervious surface to be retrofit over time
- A system for tracking and mapping completed projects
- Guidelines for project design, and standard designs and specifications
- Requirements for sizing green infrastructure projects
- Integration with existing planning documents
- Methods and results for estimating the load reductions to be achieved
- Evaluation of funding options

¹ Order R2-2015-0049.

Several of these elements will be developed collaboratively with other Contra Costa municipalities through the Contra Costa Clean Water Program (CCCWP) or regionally through the Bay Area Stormwater Management Agencies Association (BASMAA).

The first plan implementation efforts will be with the 19-20 CIP budget. In the interim development projects will be required to comply with C.3 in general, and with the GI implementation concepts where possible. The City will be budgeting staff time for the Plan development effort in the City's annual budget for staff and consultant time. The exact budget is still being evaluated.

1 • Purpose

1.1 Regulatory Requirements

The City is one of 76 Bay Area municipalities covered by the MRP issued by the California Regional Water Quality Control Board for the San Francisco Bay Region (Water Board).

Provision C.3.j.i. in the MRP requires that each Permittee prepare and submit a Green Infrastructure Plan. Required elements of the Plan are specified. The Plan is to be submitted with the Annual Report due September 30, 2019.

The provision further specifies that each Permittee prepare a framework or work plan that describes specific tasks and timeframes for development of the Plan. The City must approve the framework or work plan by June 30, 2017. This document fulfills that requirement.

Provisions C.11 and C.12 in the MRP requires Contra Costa Permittees (Contra Costa County and its 19 cities and towns) to reduce estimated PCB loading by 23 grams/year and estimated mercury loading by 9 grams/year using green infrastructure by June 30, 2020. Regionally, Permittees must also project the load reductions achieved via green infrastructure by 2020, 2030, and 2040, showing that collectively, reductions will amount to 3 kg/year PCBs and 10 kg/year mercury by 2040. The Plan will provide estimates of the reductions in the quantity of these pollutants based on implementation of the elements outlined in the Plan.

1.2 Purpose of the Green Infrastructure Plan

The City's Plan will guide a shift from conventional "collect and convey" storm drain infrastructure to more resilient, sustainable stormwater management that reduces runoff volumes, disperses runoff to vegetated

areas, harvests and uses runoff where feasible, promotes infiltration and evapotranspiration, and uses natural processes to detain and treat runoff. Green infrastructure features and facilities include, but are not limited to, pervious pavement, infiltration basins, and bioretention facilities (“rain gardens”), green roofs, and rainwater harvesting systems.

As required by Provisions C.3.a. through C.3.i. in the MRP, these “Low Impact Development” practices are currently implemented on land development projects in the City. Specific methods and design criteria are spelled out in the CCCWP’s *Stormwater C.3 Guidebook*, which the City has referenced in the Municipal Code in Chapter 8, Stormwater Management and Discharge Control.

The proposed Plan will detail how similar methods will be incorporated to retrofit existing storm drainage infrastructure using facilities constructed on public and private parcels and within the public right-of-way.

To prepare the Plan, the City will:

- Review planned capital projects to identify the potential to incorporate green infrastructure and low impact development drainage design.
- Identify and prioritize areas and projects within the City to implement additional green infrastructure projects.
- Coordinate within and between the City’s departments to develop concepts for integrated projects that serve multiple objectives (e.g., multi-modal transportation, recreation, streetscape improvements, and parks, as well as green infrastructure).
- Document resources and a process for completing conceptual designs.
- Document a funding strategy for future projects, including a process to pursue funding and align project funding sources and schedules to successfully build integrated projects.
- Develop and implement a system to track green infrastructure projects, including land development projects subject to the Provision C.3.a. through C.3.i. requirements, and project future implementation.
- Evaluate and predict the resulting reductions in the quantity of pollutants—including PCBs, mercury, and trash—transported to creeks and the Bay/Delta.

1.3 Countywide and Regional Collaboration

Several of the elements required for preparation of the City’s Plan will be developed collaboratively through the City’s participation in the CCCWP and/or regionally through participation in BASMAA.

2 • Plan Elements and Approach

2.1 Interdepartmental Coordination and Community Outreach

To be successful, the Plan must engage a wide variety of stakeholders in plan, policy, and project concept development. Planned projects with multiple benefits may be proposed for streets, parks, schools or other public parcels. A successful green infrastructure planning team will include representatives from the municipal departments who plan and implement projects on these streets and parcels.

2.1.1 Interdepartmental Coordination

The City has started developing a strategy for engagement and education of municipal staff on the purposes and goals of green infrastructure, the required elements of the Plan, and the steps needed to develop and implement the Plan.

The City has also begun convening meetings under the leadership of the Public Works Director to oversee and implement the process of preparing the Plan.

The City's interdepartmental committee will consist of the following departments and staff representatives:

Engineering: City Engineer

Planning: Planning Director

2.1.2 Community Engagement and Outreach

The City will develop a comprehensive community engagement and education strategy in order to educate public stakeholders on green infrastructure benefits and requirements and to engage them in the development of City's Plan. Such outreach will include both general outreach and targeted outreach and training for professionals involved in infrastructure planning and design. Targeted outreach and training is ongoing and will be coordinated countywide with the CCCWP.

2.2 Green Infrastructure Project Identification and Prioritization

The Plan will describe the mechanism(s) by which the City will identify, prioritize and map potential and planned green infrastructure projects on a

drainage-area-specific basis. These include public and private projects that may be implemented over the long term, with milestones for implementation by 2020, 2030, and 2040.

The Plan will also contain the outputs resulting from the identification and prioritization mechanism(s) described above, including the prioritization criteria as well as the lists and maps of prioritized projects and timeframes for implementation.

The City will use the following mechanisms to identify, prioritize, and map future green infrastructure projects:

2.2.1 Review of Capital Improvement Program Projects

Starting in FY 15-16, the City has been reviewing all potential public and private projects that could also have potential for green infrastructure measures.

It is noted that the complete list of potential public projects is generated by overall needs of the City. City staff has evaluated green infrastructure potential based on guidance developed by BASMAA: “Guidance for Identifying Green Infrastructure Potential in Municipal Capital Improvement Projects” (May 6, 2016), attached to this document as Attachment 1. At the same time, City staff is still considering the overall needs of the City in finalizing its 1-year and 5-year capital project lists.

Some additional considerations include the City’s overall needs such as flood control and drainage issues, Safe Routes to School, Americans with Disabilities Act (ADA) issues, etc. as well as current resources available to the City in the form of funding, staffing capacity and expertise.

The City will continue to scope its Capital budget and efforts within the limits of its capabilities. The Green Infrastructure Plan will add a priority factor to projects with potential for green infrastructure measures and/or evaluate ways to incorporate green infrastructure measures. The Plan will document current implementation of this process within the City and will identify planned changes or needed improvements. Resultant project lists will be used to provide potential projects for incorporation into the Plan. The Plan will also include a work plan to complete prioritized projects identified through this process.

2.2.2 Hercules Tools and Processes for Project Identification and Prioritization

City staff will develop a process and resources for identifying and pursuing, on an ongoing basis, additional opportunities to construct green infrastructure projects in the City. The process and resources will be

documented in the Plan and will address how multi-objective projects will be identified through a collaborative interdepartmental planning process.

2.2.3 Use of Contra Costa Watersheds Stormwater Resource Plan Tools and Project Lists

The Contra Costa Clean Water Program has obtained a planning grant from the State Water Resources Control Board to develop a Stormwater Resource Plan for Contra Costa County. The Contra Costa Watersheds Stormwater Resources Plan (CCSWRP) will support the development and implementation of green infrastructure plans within the County through identification of local and regional opportunities for green infrastructure projects and the development of tools for estimating pollutant load reductions over future timeframes. The CCSWRP will identify and prioritize multi-benefit projects using a metrics based approach for quantifying project benefits such as volume of stormwater infiltrated and/or treated and quantity of pollutants removed. The metrics-based analysis will be conducted using hydrologic and pollutant load reduction models coupled with GIS resources and other tools. Potential projects will also be assessed for additional benefits such as flood control, community greening, and habitat creation. The product of these analyses will be a map of opportunity areas for green infrastructure projects throughout the County and an initial prioritized list of potential projects. The tools, maps, and list of potential projects developed through this process will be available for incorporation into the Hercules Plan.

2.3 Evaluating Pollutant Load Reductions

The project prioritization criteria will consider opportunities to reduce loads of trash, mercury, PCBs, and other pollutants. It is anticipated that mercury and PCB pollutant load reductions will be evaluated for each project using the regionally developed Interim Accounting Methodology which is based on watershed locations and historic land uses. A draft of this regionally developed methodology was submitted to the Water Board in the 2016 Annual Report. Furthermore, it is anticipated that a Reasonable Assurance Analysis (RAA) will be developed in cooperation with both regional and countywide partners to demonstrate that reductions will be achieved in the time frame required by the Mercury TMDL (2006) and the PCBs TMDL (2008). The City's Plan will include a description of these two methodologies and the results of these methodologies will be incorporated into the planning process.

It is also anticipated that these two methodologies will be used to help develop and/or confirm targets for the amount of impervious surface, from

both public and private projects, within Hercules which will need to be converted or “retrofit” to drain to green infrastructure features, such as a vegetated area or stormwater treatment facility, or converted to pervious surfaces, by the MRP’s 2020, 2030, and 2040 milestones. The City’s Plan will include these targets as well as a description of the analyses used to develop them.

2.4 Projecting Green Infrastructure Implementation

To develop the Reasonable Assurance Analysis and generate targets for green infrastructure implementation on public and private land, the Plan will include an estimate of the pace of future green infrastructure implementation on public and private parcels.

To estimate the pace of future implementation on private parcels, the City will participate in development of a consistent countywide or regional methodology for projecting private development in future decades. The projections will likely incorporate or adapt regional scenarios created by the Association of Bay Area Governments/Metropolitan Transportation Commission (ABAG/MTC) to estimate future implementation of green infrastructure in each municipality.

2.5 Completed Project Tracking System

The Plan will describe the City’s process for tracking and mapping completed public and private projects and making the information available to the public.

Through the CCCWP, the City is participating in development of a GIS that will allow spatial tracking and representation (maps) of green infrastructure projects and associated tributary drainage areas. The database will be used for tracking and reporting public projects and Regulated Projects (MRP Provision C.3.b.) including Special Projects (MRP Provision C.3.e.) and may be used for tracking operation and maintenance verification inspections of installed stormwater treatment facilities (MRP Provision C.3.h.).

The City’s Plan will include an update on this countywide/regional project and the City’s status and plans for integrating this tool into its processes for implementing green infrastructure.

2.6 Design Guidance and Specifications for Green Infrastructure Projects

The Plan must include general design and construction guidelines, as well as standard specifications and details (or references to those documents) for incorporating green infrastructure components into projects within the City

of Hercules. These guidelines and specifications should address the different street and project types within the City, as defined by its land use and transportation characteristics, and allow projects to provide a range of functions and benefits, such as stormwater management, bicycle and pedestrian mobility and safety, public green space, urban forestry, etc.

The City will collaborate with other Permittees, countywide and regionally, to compile, reference, and/or develop this design guidance. Questions to be addressed in the review and compilation period include:

- Does existing design guidance address local needs? Are there local conditions or characteristics that require different guidance?
- To what extent would additional guidance, if developed, address the needs of multiple projects? Or are the design issues presented by local green infrastructure projects so site-specific that designs must be developed individually for each project?

The results of this review, and the status of design guidance to be used in future projects, will be discussed and presented in the Plan.

2.7 Sizing Requirements for Green Infrastructure Projects

The City's Plan must include a requirement that projects be designed to meet the treatment and hydromodification sizing requirements in MRP Provisions C.3.c. and C.3.d. The Permittees may collectively propose an approach on how to proceed should project constraints in non-regulated right of way projects preclude fully meeting the C.3.d. sizing requirements.

A BASMAA project is currently underway to analyze hydrologic data and bioretention facility performance under different sizing scenarios. It is anticipated that this project will result in recommendations for sizing green infrastructure in non-regulated right of way projects. The City's Plan will describe the outcomes of BASMAA's efforts and how those outcomes have been incorporated into local planning and design practices.

3 • Integration with Existing Plans and Policies

3.1 Updates to Planning Documents

The Plan must describe its relationship to other planning documents and efforts within the City and how those planning documents have been updated or modified, if needed, to support and incorporate the green infrastructure requirements. If any necessary updates or modifications have

not been accomplished by the completion of the Plan, the Plan will include a work plan and schedule to complete them.

3.2 Adoption of Policies, Ordinances and Other Legal Mechanisms

The City will review its existing policies, ordinances, and other legal mechanisms to identify which documents may need to be updated or modified to help implement the Plan, and the timing for those actions. All needed updates, modifications, or new mechanism(s) will be completed and adopted (if necessary) by September 30, 2019.

Staff will also collaborate with other Permittees, countywide and regionally, to ensure policies, ordinances, and other legal mechanisms are consistent with those of other Permittees countywide and regionally, while being tailored to the specific needs and characteristics of Hercules.

4 - Evaluation of Funding Options

The Plan must include an evaluation of funding options for design, construction, and long-term maintenance of prioritized green infrastructure projects, considering local, state and federal funding sources. The City will analyze possible funding options to raise additional revenue for the projects that will eventually be included in the Plan, including capital and operation and maintenance (O&M) costs of these projects. The evaluation for capital costs will include, but not be limited to: alternative compliance funds, grants – including transportation project grants, new taxes or other levies, existing resources, and other sources of funds.

5 - Task List, Timeframes, and Budget

5.1 Tasks and Timeframes

The tasks identified in this Framework are shown in the table attached as Attachment 2.

Attachment 1

BASMAA Development Committee

Guidance for Identifying Green Infrastructure Potential in Municipal Capital Improvement Program Projects May 6, 2016

Background

In the recently reissued [Municipal Regional Stormwater Permit](#) ("MRP 2.0"), Provision C.3.j. requires Permittees to develop and implement Green Infrastructure Plans to reduce the adverse water quality impacts of urbanization on receiving waters over the long term. Provisions C.11 and C.12 require the Permittees to reduce discharges of Mercury and PCBs, and portion of these load reductions must be achieved by implementing Green Infrastructure. Specifically, Permittees collectively must implement Green Infrastructure to reduce mercury loading by 48 grams/year and PCB loading by 120 grams/year by 2020, and plan for substantially larger reductions in the following decades. Green Infrastructure on both public and private land will help to meet these load reduction requirements, improve water quality, and provide multiple other benefits as well. Implementation on private land is achieved by implementing stormwater requirements for new development and redevelopment (Provision C.3.a. through Provision C.3.i.). These requirements were carried forward, largely unchanged, from MRP 1.0.

MRP 2.0 defines Green Infrastructure as:

Infrastructure that uses vegetation, soils, and natural processes to manage water and create healthier urban environments. At the scale of a city or county, green infrastructure refers to the patchwork of natural areas that provides habitat, flood protection, cleaner air, and cleaner water. At the scale of a neighborhood or site, green infrastructure refers to stormwater management systems that mimic nature by soaking up and storing water.

In practical terms, most green infrastructure will take the form of diverting runoff from existing streets, roofs, and parking lots to one of two stormwater management strategies:

1. Dispersal to vegetated areas, where sufficient landscaped area is available and slopes are not too steep.
2. LID (bioretention and infiltration) facilities, built according to criteria similar to those currently required for regulated private development and redevelopment projects under Provision C.3.

In some cases, the use of tree-box-type biofilters may be appropriate². In other cases, where conditions are appropriate, existing impervious pavements may be removed and replaced with pervious pavements.

In MRP 2.0, Provision C.3.j. includes requirements for Green Infrastructure planning and implementation. Provision C.3.j. has two main elements to be implemented by municipalities:

1. Preparation of a Green Infrastructure Plan for the inclusion of LID drainage design into storm drain infrastructure on public and private land, including streets, roads, storm drains, etc.
2. Early implementation of green infrastructure projects (“no missed opportunities”),

This guidance addresses the second of these requirements. The intent of the “no missed opportunities” requirement is to ensure that no major infrastructure project is built without assessing the opportunity for incorporation of green infrastructure features.

Provision C.3.j.ii. requires that each Permittee prepare and maintain a list of green infrastructure projects, public and private, that are already planned for implementation during the permit term (not including C.3-regulated projects), and infrastructure projects planned for implementation during the permit term that have potential for green infrastructure measures. The list must be submitted with each Annual Report, including:

“... a summary of how each public infrastructure project with green infrastructure potential will include green infrastructure measures to the maximum extent practical during the permit term. For any public infrastructure project where implementation of green infrastructure measures is not practicable, submit a brief description for the project and the reasons green infrastructure measures were impracticable to implement”.

This requirement has no specified start date; “during the permit term” means beginning January 1, 2016 and before December 31, 2020. The first Annual Report submittal date will be September 30, 2016.

Note that this guidance primarily addresses the review of proposed or planned public projects for green infrastructure opportunities. The Permittee may also be aware of proposed or planned private projects, not

² Standard proprietary tree-box-type biofilters are considered to be non-LID treatment and will only be allowed under certain circumstances. Guidance on use and sizing of these facilities will be provided in a separate document.

subject to LID treatment requirements, that may have the opportunity to incorporate green infrastructure. These should be addressed in the same way as planned public projects, as described below.

Procedure for Review of Planned Public Projects and Annual Reporting

The municipality's Capital Improvement Program (CIP) project list provides a good starting point for review of proposed public infrastructure projects. Review of other lists of public infrastructure projects, such as those proposed within separately funded special districts (e.g., lighting and landscape districts, maintenance districts, and community facilities districts), may also be appropriate. This section describes a two-part procedure for conducting the review.

Part 1 – Initial Screening

The first step in reviewing a CIP or other public project list is to screen out certain types of projects from further consideration. For example, some projects (e.g., interior remodels, traffic signal replacement) can be readily identified as having no green infrastructure potential. Other projects may appear on the list with only a title, and it may be too early to identify whether green infrastructure could be included. Still others have already progressed past the point where the design can reasonably be changed (this will vary from project to project, depending on available budget and schedule).

Some “projects” listed in a CIP may provide budget for multiple maintenance or minor construction projects throughout the jurisdiction or a portion of the jurisdiction, such as a tree planting program, curb and sidewalk repair/upgrade, or ADA curb/ramp compliance. It is recommended that these types of projects not be included in the review process described herein. The priority for incorporating green infrastructure into these types of projects needs to be assessed as part of the Permittees' development of Green Infrastructure Plans, and standard details and specifications need to be developed and adopted. During this permit term, Permittees will evaluate select projects, project types, and/or groups of projects as case studies and develop an approach as part of Green Infrastructure planning.

The projects removed through the initial screening process do not need to be reported to the Water Board in the Permittee's Annual Report. However, the process should be documented and records kept as to the reason the project was removed from further consideration. Note that projects that were determined to be too early to assess will need to be reassessed during the next fiscal year's review.

The following categories of projects may be screened out of the review process in a given fiscal year:

1. **Projects with No Potential** - The project is identified in initial screening as having no green infrastructure potential based on the type of project. For example, the project does not include any exterior work. Attachment 1 provides a suggested list of such projects that Permittees may use as a model for their own internal process.

2. **Projects Too Early to Assess** – There is not yet enough information to assess the project for green infrastructure potential, or the project is not scheduled to begin design within the permit term (January 2016 – December 2020). If the project is scheduled to begin within the permit term, an assessment will be conducted if and when the project moves forward to conceptual design.
3. **Projects Too Late to Change** – The project is under construction or has moved to a stage of design in which changes cannot be made. The stage of design at which it is too late to incorporate green infrastructure measures varies with each project, so a “percent-complete” threshold has not been defined. Some projects may have funding tied to a particular conceptual design and changes cannot be made even early in the design process, while others may have adequate budget and time within the construction schedule to make changes late in the design process. Agencies will need to make judgments on a case-by-case basis.
4. **Projects Consisting of Maintenance or Minor Construction Work Orders** – The “project” includes budgets for multiple maintenance or minor construction work orders throughout the jurisdiction or a portion of the jurisdiction. These types of projects will not be individually reviewed for green infrastructure opportunity but will be considered as part of a municipality’s Green Infrastructure Plan.

Part 2 – Assessment of Green Infrastructure Potential

After the initial screening, the remaining projects either already include green infrastructure or will need to go through an assessment process to determine whether or not there is potential to incorporate green infrastructure. A recommended process for conducting the assessment is provided later in this guidance. As a result of the assessment, the project will fall into one of the following categories with associated annual reporting requirements. Attachment 2 provides the relevant pages of the FY 15-16 Annual Report template for reference.

- **Project is a C.3-regulated project and will include LID treatment.**
Reporting: Follow current C.3 guidance and report the project in Table C.3.b.iv.(2) of the Annual Report for the fiscal year in which the project is approved.
- **Project already includes green infrastructure and is funded.**
Reporting: List the project in “Table B-Planned Green Infrastructure Projects” in the Annual Report, indicate the planning or implementation status, and describe the green infrastructure measures to be included.
- **Project may have green infrastructure potential** pending further assessment of feasibility, incremental cost, and availability of funding.

Reporting: If the feasibility assessment is not complete and/or funding has not been identified, list the project in “Table A-Public Projects Reviewed for Green Infrastructure” in the Annual Report. In the “GI Included?” column, state either “TBD” (to be determined) if the assessment is not complete, or “Yes” if it has been determined that green infrastructure is feasible. In the rightmost column, describe the green infrastructure measures considered and/or proposed, and note the funding and other contingencies for inclusion of green infrastructure in the project. Once funding for the project has been identified, the project should be moved to “Table B-Planned Green Infrastructure Projects” in future Annual Reports.

- **Project does not have green infrastructure potential.** A project-specific assessment has been completed, and Green Infrastructure is impracticable.

Reporting: In the Annual Report, list the project in “Table A-Public Projects Reviewed for Green Infrastructure”. In the “GI Included?” column, state “No.” Briefly state the reasons for the determination in the rightmost column. Prepare more detailed documentation of the reasons for the determination and keep it in the project files.

Process for Assessing Green Infrastructure Potential of a Public Infrastructure Project

Initial Assessment of Green Infrastructure Potential

Consider opportunities that may be associated with:

- Alterations to roof drainage from existing buildings
- New or replaced pavement or drainage structures (including gutters, inlets, or pipes)
- Concrete work
- Landscaping, including tree planting
- Streetscape improvements and intersection improvements (other than signals)

Step 1: Information Collection/Reconnaissance

For projects that include alterations to building drainage, identify the locations of roof leaders and downspouts, and where they discharge or where they are connected to storm drains.

For street and landscape projects:

- Evaluate potential opportunities to substitute pervious pavements for impervious pavements.
- Identify and locate drainage structures, including storm drain inlets or catch basins.
- Identify and locate drainage pathways, including curb and gutter.

Identify landscaped areas and paved areas that are adjacent to, or down gradient from, roofs or pavement. These are potential facility locations. *If there are any such locations, continue to the next step.* Note that the project area boundaries may be, but are not required to be, expanded to include potential green infrastructure facilities.

Step 2: Preliminary Sizing and Drainage Analysis

Beginning with the potential LID facility locations that seem most feasible, identify possible pathways to direct drainage from roofs and/or pavement to potential LID facility locations—by sheet flow, valley gutters, trench drains, or (where gradients are steeper) via pipes, based on existing grades and drainage patterns. Where existing grades constrain natural drainage to potential facilities, the use of pumps may be considered (as a less preferable option).

Delineate (roughly) the drainage area tributary to each potential LID facility location. Typically, this requires site reconnaissance, which may or may not include the use of a level to measure relative elevations.

Use the following preliminary sizing factor (facility area/tributary area) for the potential facility location and determine which of the following could be constructed within the existing right-of-way or adjacent vacant land. Note that these sizing factors are guidelines (not strict rules, but targets):

- Sizing factor ≥ 0.5 for dispersal to landscape or pervious pavement³ (i.e., a maximum 2:1 ratio of impervious area to pervious area)
- Sizing factor ≥ 0.04 for bioretention
- Sizing factor ≥ 0.004 (or less) for tree-box-type biofilters

For bioretention facilities requiring underdrains and tree-box-type biofilters, note if there are potential connections from the underdrain to the storm drain system (typically 2.0 feet below soil surface for bioretention facilities, and 3.5 feet below surface for tree-box-type biofilters).

If, in this step, you have confirmed there may be feasible potential facility locations, *continue to the next step*.

Step 3: Barriers and Conflicts

Note that barriers and conflicts do not necessarily mean implementation is infeasible; however, they need to be identified and taken into account in future decision-making, as they may affect cost or public acceptance of the project.

Note issues such as:

- Confirmed or potential conflicts with subsurface utilities
- Known or unknown issues with property ownership, or need for acquisition or easements
- Availability of water supply for irrigation, or lack thereof
- Extent to which green infrastructure is an “add on” vs. integrated with the rest of the project

³ Note that pervious pavement systems are typically designed to infiltrate only the rain falling on the pervious pavement itself, with the allowance for small quantities of runoff from adjacent impervious areas. If significant runoff from adjacent areas is anticipated, preliminary sizing considerations should include evaluation of the depth of drain rock layer needed based on permeability of site soils.

Step 4: Project Budget and Schedule

Consider sources of funding that may be available for green infrastructure. It is recognized that lack of budget may be a serious constraint for the addition of green infrastructure in public projects. For example, acquisition of additional right-of-way or easements for roadway projects is not always possible. Short and long term maintenance costs also need to be considered, and jurisdictions may not have a funding source for landscape maintenance, especially along roadways. The objective of this process is to identify opportunities for green infrastructure, so that if and when funding becomes available, implementation may be possible.

Note any constraints on the project schedule, such as a regulatory mandate to complete the project by a specific date, grant requirements, etc., that could complicate aligning a separate funding stream for the green infrastructure element. Consider whether cost savings could be achieved by integrating the project with other planned projects, such as pedestrian or bicycle safety improvement projects, street beautification, etc., if the schedule allows.

Step 5: Assessment—Does the Project Have Green Infrastructure Potential?

Consider the ancillary benefits of green infrastructure, including opportunities for improving the quality of public spaces, providing parks and play areas, providing habitat, urban forestry, mitigating heat island effects, aesthetics, and other valuable enhancements to quality of life.

Based on the information above, would it make sense to include green infrastructure into this project—*if funding were available for the potential incremental costs of including green infrastructure in the project*? Identify any additional conditions that would have to be met for green infrastructure elements to be constructed consequent with the project.

Examples of Projects with No Potential for Green Infrastructure

- ☐ Projects with no exterior work (e.g., interior remodels)
- ☐ Projects involving exterior building upgrades or equipment (e.g., HVAC, solar panels, window replacement, roof repairs and maintenance)
- ☐ Projects related to development and/or continued funding of municipal programs or related organizations
- ☐ Projects related to technical studies, mapping, aerial photography, surveying, database development/upgrades, monitoring, training, or update of standard specs and details
- ☐ Construction of new streetlights, traffic signals or communication facilities
- ☐ Minor bridge and culvert repairs/replacement
- ☐ Non-stormwater utility projects (e.g., sewer or water main repairs/replacement, utility undergrounding, treatment plant upgrades)
- ☐ Equipment purchase or maintenance (including vehicles, street or park furniture, equipment for sports fields and golf courses, etc.)
- ☐ Irrigation system installation, upgrades or repairs

Attachment 2 Green Infrastructure Planning Tasks, Roles, and Timeframes

Task Description (and reference to the specific subprovision within Provision C.3.j. that is addressed by the task)	Lead			Estimated Timeframe for Completion	Resources and Notes The task list and schedule is a living document and will be refined over the course of the GI Plan development process.
	Local	CCCWP	BASMAA		
Tasks that should have been completed or should be scheduled now					
Provide a staff report to City Management and Council regarding the Green Infrastructure Provision (C.3.j.i.(4)(c))				By June 30, 2016	See the CCCWP model staff report.
Provide a presentation and training to interdepartmental staff regarding the Green Infrastructure Provision (C.3.j.i.(4)(b))				By Feb. 2017	See the CCCWP model presentation.
Convene an interdepartmental Green Infrastructure Committee or Work Group				By Feb. 2017	
Identify planning documents requiring updates and integration with Green Infrastructure planning (C.3.j.i.(4)(h))				By Feb. 2017	
Develop a draft budget and staff assignments for preparing the Green Infrastructure Plan during 2017-2019				By Feb. 2017	
Establish procedures and responsibilities for reviewing capital improvement projects (early implementation) (C.3.j.ii.)				By June 30, 2016	See BASMAA "Guidance for Identifying Green Infrastructure Potential in Municipal Capital Improvement Projects".
Begin discussions of strategy for developing capacity to plan, seek funding for, and implement Green Infrastructure projects				By Feb. 2017	
Coordinate within and between departments to develop concepts for integrated projects that serve multiple objectives				By Feb. 2017	

Task Description (and reference to the specific subprovision within Provision C.3.j. that is addressed by the task)	Lead			Estimated Timeframe for Completion	Resources and Notes The task list and schedule is a living document and will be refined over the course of the GI Plan development process.
	Local	CCCWP	BASMAA		
Tasks to complete by June 30, 2017					
Complete the Green Infrastructure Plan Framework and have it approved by the Council, Board, or City/Town Manager (C.3.j.i.(1))) and (C.3.j.i.(5)(a))					
Create a schedule for approval of the Framework				Jan. 2017	
Prepare a draft Framework				Feb. 2017	See the Framework template provided by CCCWP.
Circulate and obtain comments on the draft Framework				March 2017	
Revise Framework and make final				March 2017	
Prepare a Staff Report and Presentation (if needed) for the Framework				April 2017	
Obtain Manager, Council, or Board Action				By June 30	
Tasks to complete July 1, 2017 – September 30, 2019					
Draft Green Infrastructure Plan (C.3.j.i.(2))					
Review and revise schedule for provision of resources to be provided countywide or regionally				July-Aug. 2017	
Obtain consultant resources to assist with Plan preparation				Aug. 2017	If needed.
Create a detailed schedule for completion and approval of the Green Infrastructure Plan, and for submittal with the 2019 Annual Report				Aug. 2017	

	Task Description (and reference to the specific subprovision within Provision C.3.j. that is addressed by the task)	Lead			Estimated Timeframe for Completion	Resources and Notes
		Local	CCWCP	BASMAA		
	Prepare a Green Infrastructure Plan Template				Dec. 2017	The scope of this deliverable will be discussed with the CCCWP Development Committee in Spring 2017.
	Draft the Green Infrastructure Plan				Jan. 2018 – Feb. 2019	The Green Infrastructure Plan will include locally originated elements and adaptation of resources produced countywide and regionally (see tasks below).
	Circulate, obtain comments and revise the draft Plan				Feb.-May 2019	
	Council or Board action to approve the Green Infrastructure Plan and any policies required to implement the Plan				May – Aug. 2019	
	Submit the Green Infrastructure Plan				Sept. 2019	
	Mechanism for Identifying and Prioritizing Projects					
	Create or adopt a mechanism to locate, prioritize, and map areas for potential and planned public projects on a drainage-area-specific basis (C.3.j.i.(2)(a))				Oct. 2017*	*Tasks 4.4 in CCSWRP Scope of Work. It is currently anticipated that the quantitative methodologies for this analysis will be developed by Oct 2017.
	Identify targets for the amount of impervious surface to be retrofitted by 2020, 2030, and 2040 (C.3.j.i.(2)(c))				June 2018	The task will be further discussed with the CCCWP Development Committee in 2017. It is assumed that the CCCWP will, at a

Task Description (and reference to the specific subprovision within Provision C.3.j, that is addressed by the task)	Lead			Estimated Timeframe for Completion	Resources and Notes
	Local	CCCWP	BASMA		
					The task list and schedule is a living document and will be refined over the course of the GI Plan development process.
Identify and prioritize projects and/or areas for potential projects for implementation by 2020, 2030, and 2040, consistent with the Reasonable Assurance Analysis (C.3.j.i.(2)(b) and C.3.j.iv.(1))				June 2018	minimum, provide guidance on the methodology to complete this task.
Project Amount and Locations of Private Development (C.3.j.i.(2)(c))					The task will be further discussed with the CCCWP Development Committee in 2017. It is assumed that the CCCWP will, at a minimum, provide guidance on the methodology to complete this task.
Identify or develop a methodology for projecting amount and locations of private development				July 2017	CCCWP will coordinate with other countywide stormwater programs with the aim of making methodologies consistent regionally.
Apply methodology and revise/validate projections of private development based on local understanding and knowledge of development patterns				June 2018	
List of Prioritized Projects (C.3.j.i.(2)(b))					
Develop list of project concepts and prioritize based on evaluation of multiple benefits				Jan. 2018*	*Task 4.5 in the CCSWRP Scope of Work. A draft project list for review is currently anticipated by Jan 2018.
Revise/validate project lists based on local knowledge				Feb.- March 2018	

Task Description (and reference to the specific subprovision within Provision C.3.j. that is addressed by the task)	Lead			Estimated Timeframe for Completion	Resources and Notes
	Local	CCCWP	BASMA		
Identify projects that may be candidates for grant funding, including funding under Round 2 of the Prop. 1 Stormwater Grant Program				Feb.- March 2018	And ongoing.
Early Implementation					
Prepare workplans to complete prioritized projects produced from capital improvement program review (C.3.j.i.(2)(i))				Nov.-Dec. 2017	And subsequent years. Workplans should be produced following reporting of projects in Annual Report and in time for consideration in following year's budget.
Prepare workplans for additional staff-identified Green Infrastructure projects				Nov.-Dec. 2017	And subsequent years.
Incorporate the lists of early implementation projects and additional staff-identified projects and associated workplans into the Green Infrastructure Plan				Jan. 2019	
Supporting Elements and Associated Tasks					
Develop a model ordinance, policy or policies for Green Infrastructure Plan Implementation (C.3.j.i.(3))				Dec. 2018	The need for CCCWP assistance with this task, and the scope of any resulting deliverables, will be discussed with the CCCWP Development Committee in 2017 and 2018.

	Task Description (and reference to the specific subdivision within Provision C.3.j, that is addressed by the task)	Lead			Estimated Timeframe for Completion	Resources and Notes The task list and schedule is a living document and will be refined over the course of the GI Plan development process.
		Local	CCCWP	BASMAA		
	Review local ordinances, policies, and resolutions and determine if updates are needed to support implementation of Green Infrastructure. Document this review in the 2019 Annual Report (C.3.j.i.(5)(c))				June 2018	
	Prepare an analysis of potential funding options for Green Infrastructure Projects (C.3.j.i.(2))				Dec. 2017	The scope of this deliverable will be further discussed with the CCCWP Development Committee in Spring 2017.
	Analyze funding options for Green Infrastructure Projects and applicability to local conditions (C.3.j.i.(2)(k))				June 2018	
	Develop Green Infrastructure Design Guidelines for streetscapes and other public infrastructure (C.3.j.i.(2)(e))				Dec. 2018	The scope and schedule for this deliverable will be further discussed with the CCCWP Development Committee in Spring 2017.
	Develop specifications and typical design details for Green Infrastructure (C.3.j.i.(2)(f))				Dec. 2018	The scope and schedule for this deliverable will be further discussed with the CCCWP Development Committee in Spring 2017.
	Develop sizing criteria for Green Infrastructure facilities in non-Regulated right-of-way projects (C.3.j.i.(2)(g))				Sep. 2017	See BASMAA's December 2016 RFP to analyze hydrologic data and bioretention facility performance.
	Develop regionally consistent methods to track and report implementation of green infrastructure measures, including load reductions achieved (C.3.j.iv.(1))				Dec. 2017	Being developed in cooperation with ACCWP.

Attachment C.4.b.iii List of Potential Site

Facility Name	Address	City	Program Category
Kim's Salon & Spa	844 Willow Ave A9-A10	Hercules	Beauty Salon
Tyna Beauty Salon	844 Willow Ave #7	Hercules	Beauty Salon
West Coast Drilling	1360 Willow Ave	Hercules	Commercial
Cali Bay Dental Care	1581 Sycamore Ave 3	Hercules	Dental
Dental Center	844 Willow Ave	Hercules	Dental
Hercules Cleaners	1581 Sycamore Ave	Hercules	Dry Cleaner
Park Lake Cleaners	1572 Sycamore Ave #C	Hercules	Dry Cleaner
Willow Cleaners	844 Willow Ave #A5	Hercules	Dry Cleaner
Biryani House / Banquet Hall	848 Willow Ave #E,F,G	Hercules	Food Service
Burger King	844 Willow Ave	Hercules	Food Service
Cabalen Filipino Cusine	1572 Sycamore Ave F	Hercules	Food Service
Choko's Cuisine	1511 Sycamore Ave	Hercules	Food Service
Claws And Crows	848 Willow Ave	Hercules	Food Service
Creekside Café	1581 Sycamore Ave A9	Hercules	Food Service
Dragon Terrace	1581 Sycamore Ave #1	Hercules	Food Service
Extreme Pizza	3700 San Pablo Ave	Hercules	Food Service
Hercules Round Table	1511 Sycamore Ave #D	Hercules	Food Service
Jack In The Box	3800 San Pablo Ave #A	Hercules	Food Service
Kinders Meats, Deli, Bbq	3600 San Pablo Ave #1	Hercules	Food Service
L&I Hawaiian Barbeque	1572 Sycamore Ave #B	Hercules	Food Service
Mazatlan Taqueria & Grill	844 Willow Ave #A11	Hercules	Food Service
McDonald's	1570 Sycamore Ave	Hercules	Food Service
Powder Keg	2132 Railroad Ave	Hercules	Food Service
Rsm Oriental Foodmart/restaurant	1500 Sycamore Ave B-5	Hercules	Food Service
Shinsen Sushi	1581 Sycamore Ave	Hercules	Food Service
Starbucks Coffee	3700 San Pablo Ave	Hercules	Food Service
Starbucks Coffee	842 Willow Ave	Hercules	Food Service
Subway	1572 Sycamore Ave #A	Hercules	Food Service
Sunflower Bakery	1500 Sycamore Ave #B-3	Hercules	Food Service
Taco Bell	1541 Sycamore Ave	Hercules	Food Service

Willow Garden Chinese	844 Willow Ave #A-8	Hercules	Food Service
Won Thai Cuisine	833 Willow Ave #A-1A	Hercules	Food Service
Hercules Shell Gas Station	3900 San Pablo Ave	Hercules	Gas Station
Union 76/pro Wash & Go	828 Willow Ave	Hercules	Gas Station
Lucky Supermarket	1590 Sycamore Ave	Hercules	Grocery Store
Willow Food & Liquor	844 Willow Ave #A1	Hercules	Grocery Store
Bay Bioanalytical Laboratory	551 Linus Pauling Drive A	Hercules	Laboratory
Bio-Rad Laboratories	2000 Alfred Nobel Drive	Hercules	Laboratory
Bio-Rad Laboratories	225-265 Linus Pauling Drive	Hercules	Laboratory
Bio-Rad Laboratories	4000 Alfred Nobel Drive	Hercules	Laboratory
Bio-Rad Laboratories	6000 James Watson Drive	Hercules	Laboratory
Bio-Rad Laboratories	800 Alfred Nobel Drive	Hercules	Laboratory
Bio-Rad Laboratories	925 Alfred Nobel Drive	Hercules	Laboratory
Davi Lab	730 Alfred Nobel Drive	Hercules	Laboratory
Investigen Dna Biotechnologies	750 Alfred Nobel Drive #104	Hercules	Laboratory
Ptrl West Lab	625 Alfred Nobel Drive B	Hercules	Laboratory
West Coast Pathology Laboratory	708-712 Alfred Nobel Drive 104	Hercules	Laboratory
Westcoast Pathology Laboratory	710 Alfred Nobel Drive	Hercules	Laboratory
A&B Die Casting	900 Alfred Nobel Drive	Hercules	Manufacturing
Creekside Center	1501 Sycamore Ave	Hercules	Property Mngt
Lin Group Properties, LLC	1572 Sycamore Ave	Hercules	Property Mngt
Big Lots	1551 Sycamore Ave	Hercules	Retail
Rite Aid	1560 Sycamore Ave #B-5	Hercules	Retail

City of Hercules

**Plan and Schedule for Implementation
of Additional Trash Load Reduction Control Actions to
Attain 70%**

Submitted to the
California Regional Water Quality Control Board for the San Francisco Bay Region
September 30, 2017
in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

A. Introduction

The City reported a 15% trash load reduction in its FY 15-16 Annual Report. Because the City did not achieve the non-mandatory performance guideline of 60% by July 1, 2016, a Trash Action Plan was prepared and submitted to the Water Board to document the description and schedule of additional trash load reduction control actions that would be implemented to attain 70% percent reduction by July 1, 2017.

Although the City began implementation of its action plan, the load reduction for FY 16-17 (15.1%) did not achieve the 70% mandatory trash load reduction deadline by July 1, 2017. The City of Hercules is dedicated to reducing trash in the City that is discharged to their MS4, however, due to multiple constraints; reduction goals have not been achieved in the timetable laid out in the MRP.

Consistent with MRP provision C.10.f.v.b, the City is submitting this plan that describes actions to comply with the 70% mandatory reduction deadline in a timely manner. The report includes a plan and schedule for implementation of full capture systems and other actions sufficient to attain the required 70% reduction.

B. Implementation of Additional Full Trash Capture

During FY 16-17, the City began implementation of the action plan. These actions were implemented during FY 2016-17:

- **Conducting a Citywide Trash Full Capture Evaluation C.10.b.ii** – The City conducted a City-wide Full Capture reconnaissance of all inlets in Medium and High Trash Generation Areas. This action identified 31 eligible inlets for installation of localized Full Trash Capture Devices. The City is currently reviewing proposals from eligible vendors.
- **Securing Funding for Future Trash Control Measure Implementation** – The City has identified funding for trash capture device installation and maintenance.

The City of Hercules plans to enter into a contract with approved vendor(s) to install Full Trash Capture Devices at locations to be determined in Trash Management Areas 1 & 2. TMA 1 represents ~2 acres of high trash generation rate and TMA 2 represents ~6 acres of moderate generation rate in City Right-of-way. In addition to City installations, the City's updated ordinance will require private property owners in these two TMA's to install full trash capture to cover the remaining acres in these TMAs.

The City is using GIS to map and calculate the full trash capture drainage areas in TMAs 1 & 2 that account for approximately 8 acres within City Right-of-Way (ROW). Additional acreage is potentially captured if Full Trash Capture devices that capture tributary flows can be deemed as a safe and feasible option. The City has identified 4 potential locations that are under consideration for this type of approach.

Table 1: Additional Full Trash Capture Devices to Be Installed

Types of Devices	Total Number of Devices Per Type to Be Installed in FY 2016-2017
Baskets (Collector Pipe Screens, TopHats, Crescents, etc.)	31
C.3 LID	TBD
Other	
Total	31

Table 2: Additional Acres Proposed to be Treated by Full Trash Capture Devices Per Trash Generation Rate Per Trash Management Area and Projected Jurisdiction-Wide Percent Reduction

TMA	Additional Acres Proposed to Be Treated by Full Trash Capture Devices					Projected Jurisdiction-Wide Percent Reduction
	Low	Mod	High	Very High	Total Acres	
1			1.58		2	~25-40%
2		5.68			6	
3					0	
4					0	
5					0	
6					0	
7					0	
8			-		0	
9					0	
10					0	
Total	0	6	2	0	8	

C. Updating of the City's Stormwater Ordinance

In addition to the Full Trash Capture installation plan, City staff will bring an updated Ordinance to Council to ensure that commercial property within the City's MS4 are in compliance with the Permit requirements for trash.

The updated ordinance will give the City the necessary authority to require installation of full trash capture devices in the privately owned acres of trash generation in the City that drain directly to the MS4. The updated ordinance will include language that the City may require installation and maintenance of full trash capture devices, within a time frame specified by the City to prevent the discharge of trash or other pollutants from private parking lots, streets, roads, and drainage facilities into the storm drain system. The ordinance will also include language that (1) failure or refusal to timely comply with such requirement is prohibited and shall constitute a violation of this Chapter, which may result in administrative citations being issued, and (2) requires the property owner to enter into a long-term covenant or agreement ensure the operation and maintenance of full trash capture devices.

Approximately 29 acres of moderate trash generation and 9 acres of high trash generation represent the City's remaining acres needing to be treated in order to reach the 2022 goal of 100%.

D. Summary of Control Measures and Offsets with Anticipated Percent Reduction

The City believes that the plan being put forward to meet the 70% requirement will be successful. The installation of full trash capture along with increased sweeping should get the City to 31.4%. The remaining percent reductions will come through the installation of full trash capture devices on the privately owned parcels.

Table 3: Projected Percent Reduction in Trash Load Through FY 2016-2017

Totals	Current Percent Reduction as of July 1, 2017	Projected Percent Reduction Through Installation
<i>Actions</i>		
Full Trash Capture Devices	15.4%	30.1%
Ordinance	0.0%	~60-70%
<i>Subtotal</i>	15.4%	~70-100%
Total	15.4%	~70-100%

E. Plan and Schedule for Implementation Summary

The City of Hercules has completed the City-wide evaluation for installation of full trash capture devices. Locations have been selected within the GIS system and vendors are being considered. The increased street sweeping is already being performed and assessments are currently planned for implementation. It is important to note that 7.17 acres of enhanced street sweeping are serving multiple TMAs (1,2 & 3).

The ordinance is an update to the current stormwater ordinance for the City. During the updating process, the City plans to offer outreach to private property owners in the included areas. This process is projected to take the City six to eight months to complete. Once completed implementation of the requirements and installation of devices may take an additional 12-18 months.